

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF MISSISSIPPI  
OXFORD DIVISION

KELLI DENISE GOODE, )  
Individually, and also as )  
the Personal )  
Representative of Troy )  
Charlton Goode, Deceased, )  
and as Mother, Natural )  
Guardian, and Next Friend )  
of R.G., a Minor, and also )  
on behalf of all similarly )  
situated persons, )

Plaintiffs, )

CIVIL ACTION

VS. )

NO.: 3:17-cv-060-DMB-RP

THE CITY OF SOUTHAVEN, )  
TODD BAGGETT, )  
Individually, JEREMY BOND, )  
Individually, TYLER PRICE, )  
Individually, JOEL RICH, )  
Individually, JASON )  
SCALLORN, Individually, )  
STACIE J. GRAHAM a/k/a )  
WITTE, Individually, MIKE )  
MUELLER, Individually, )  
WILLIAM PAINTER, JR., )  
Individually, BRUCE K. )  
SEBRING, Individually, )  
JOSEPH SPENCE, )  
Individually, RICHARD A. )  
WEATHERFORD, Individually, )  
JOHN DOES 1-10, BAPTIST )  
MEMORIAL HOSPITAL - )  
DESOTO, a Mississippi )  
Corporation, SOUTHEASTERN )  
EMERGENCY PHYSICIANS, )  
INC., A Tennessee )  
Corporation, and LEMUEL )  
DONJA OLIVER, M.D., )

Defendants. )

\*\*\*\*\*

ORAL DEPOSITION OF

PARIN PARIKH, M.D.

SEPTEMBER 19, 2017

\*\*\*\*\*

ORAL DEPOSITION OF PARIN PARIKH, M.D., produced as a witness at the instance of the Defendants, and duly sworn, was taken in the above-styled and numbered cause on September 19, 2017, from 1:10 p.m. to 4:48 p.m., before Lisa C. Hundt, CSR, RPR, CLR in and for the State of Texas, reported by machine shorthand, at the offices of Lexitas, located at 1201 Elm Street, Suite 5220, Dallas, Texas, in accordance with the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto.

## 1 A P P E A R A N C E S

2 FOR THE PLAINTIFFS:

3 Mr. Kevin M. McCormack  
4 BALLIN, BALLIN & FISHMAN  
5 200 Jefferson Avenue  
6 Suite 1250  
7 Memphis, Tennessee 38103  
8 901.525.6278  
9 901.525.6294 (Fax)

7 And

8 Mr. James F. Garrett (via telephone)  
9 EASTLAND AND GARRETT  
10 103 N. Lamar Boulevard  
11 Suite 204  
12 Oxford, Mississippi 38655  
13 877.217.3492

11 FOR THE DEFENDANT LEMUEL DONJA OLIVER:

12 Mr. Marty R. Phillips  
13 RAINEY, KIZER, REVIERE & BELL  
14 50 North Front Street  
15 Suite 610  
16 Memphis, Tennessee 38103  
17 901.333.8181  
18 901.577.1416 (Fax)  
19 mphilips@raineykizer.com

17 And

18 Mr. James R. Gass (via telephone)  
19 GASS, WEBER, MULLINS  
20 241 North Broadway  
21 Suite 300  
22 Milwaukee, Wisconsin 53202  
23 414.223.3300  
24 414.224.6116 (Fax)

22

23

24

25

1 FOR THE DEFENDANT THE CITY OF SOUTHAVEN, TODD BAGGETT,  
Individually, JEREMY BOND, Individually, TYLER PRICE,  
2 Individually, JOEL RICH, Individually, JASON SCALLORN,  
Individually, STACIE J. GRAHAM a/k/a WITTE,  
3 Individually, MIKE MUELLER, Individually, WILLIAM  
PAINTER, JR., Individually, BRUCE K. SEBRING,  
4 Individually, and RICHARD WEATHERFORD:

5 Mr. L. Bradley Dillard (via telephone)  
MITCHELL, MCNUTT & SAMS  
6 105 S. Front Street  
Tupelo, Mississippi 38804  
7 662.842.3871  
662.842.8450 (Fax)  
8

9 FOR THE DEFENDANT BAPTIST MEMORIAL HOSPITAL - DESOTO,  
INC.:

10 Mr. David W. Upchurch  
11 UPCHURCH & UPCHURCH  
141 S. Commerce Street  
12 Suite B  
Tupelo, Mississippi 38804  
13 662.260.6950  
662.269.3713 (Fax)  
14

15 FOR DEFENDANT SOUTHEASTERN EMERGENCY PHYSICIANS, INC.:

16 Mr. Loys A. "Trey" Jordan, III (via telephone)  
MCDONALD KUHN  
5400 Poplar Avenue  
17 Suite 330  
Memphis, Tennessee 38119  
18 901.526.0606  
19  
20  
21  
22  
23  
24  
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1	INDEX	
2		PAGE
3	Appearances.....	3
4	Exhibits.....	5
5	Stipulations.....	6
6	PARIN PARIKH, M.D.	
7	Examination by Mr. Phillips.....	7
8	Examination by Mr. Upchurch.....	100
9	Examination by Mr. Dillard.....	119
10	Examination by Mr. McCormack.....	128
11	Corrections Page.....	165
12	Reporter's Certificate.....	167
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1	EXHIBITS		
2	NO.	DESCRIPTION	PAGE
3	Ex. 1	Medical Literature Dr. Parikh Reviewed.....	73
4	Ex. 2	Dr. Vilkey's Report.....	73
5	Ex. 3	Statement of Facts.....	74
6	Ex. 4	Notice of Deposition.....	85
7	Ex. 5	Emails Pertaining to the Articles.....	90
8	Ex. 6	Dr. Parikh's Bills.....	90
9	Ex. 7	Email Communications.....	99

10 \*\*\*REPORTER'S NOTE: Exhibits 3, 5, 6, and 7 were  
11 retained by counsel.  
12  
13  
14  
15  
16  
17  
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1 P R O C E E D I N G S

2 PARIN PARIKH,

3 having been first duly sworn, testified as follows:

4 EXAMINATION

5 BY MR. PHILLIPS:

6 Q. Tell us your name, please.

7 A. Parin Parikh.

8 Q. Dr. Parikh, I'm Marty Phillips, we met a few  
9 moments ago. And in this case, I, along with Ric Gass,  
10 represent Dr. Oliver. You have been identified as an  
11 expert on behalf of the plaintiff as somebody who may be  
12 called upon to give testimony at the trial of the case.  
13 Do you understand that?

14 A. Yes.

15 Q. We're here today to take your deposition about  
16 the opinions you have in this case. You understand  
17 that?

18 A. Yes, sir.

19 Q. Okay. You've had an opportunity, I trust, in  
20 preparation for today to review whatever materials you  
21 needed to review to prepare?

22 A. Yes.

23 Q. And you have had an opportunity to meet with  
24 counsel who retained you in preparation for the  
25 deposition?

1 A. Yes, sir.

2 Q. When did you last do so?

3 A. Meet with counsel?

4 Q. Yes.

5 A. Just prior to this.

6 Q. Today?

7 A. This morning, yes.

8 Q. Okay. Is there any reason that you feel  
9 unprepared to go forward and discuss this case with us  
10 in this setting today?

11 A. Other than this being my first one, no, I  
12 think I'm ready to go.

13 Q. Okay. By saying this is your first one, do  
14 you mean it is your first deposition?

15 A. Yes.

16 Q. It's your first deposition in any kind of a  
17 case?

18 A. Yes, sir.

19 Q. All right. Well, I appreciate you telling me  
20 that. Let me mention a few things that might facilitate  
21 the process. I'll start by telling you that if I don't  
22 ask a bad question today, it will be the first time  
23 ever. So if I ask you a question that you don't  
24 understand, don't answer it. Stop me and tell me you  
25 don't understand the question so I can try to repeat it



1 or rephrase it. All right?

2 A. Okay.

3 Q. It is important that we understand each other  
4 and I need your help to be sure that occurs, all right?

5 A. Yes.

6 Q. Also, it's not uncommon at all in the course  
7 of conversation for us to communicate by saying "uh-huh"  
8 or "huh-uh" or by shaking or nodding our heads.

9 A. Right.

10 Q. Please don't do that because we want our  
11 record to be clear. We don't want to be arguing about  
12 "uh-huh" or "huh-uh" later on. And if I prompt you for  
13 a "yes" or a "no" answer, it'll be just to try be to  
14 sure our record is clear, okay?

15 A. Yes, sir.

16 Q. Sometimes in depositions people are eager to  
17 answer. They think they know what the question is, so  
18 they start to answer before it's been fully asked. And  
19 you might guess right about the question or you might  
20 guess wrong about what it is. So if you would please  
21 wait until the question has been completed, I'll do my  
22 best to wait until your answer's been completed before I  
23 start the next question, all right?

24 A. Got it.

25 Q. All right. Your area of specialty is

1 cardiology; is that right?

2 A. Yes, sir.

3 Q. And is that your area of practice?

4 A. Yes.

5 Q. Is that your only area of practice?

6 A. That is my main area of practice, only area of  
7 practice.

8 Q. Which one, main or only?

9 A. Only -- I mean, so let me just clarify.  
10 Interventional cardiology and cardiovascular medicine.

11 Q. Okay. Both of those would be encompassed  
12 within the field of cardiology?

13 A. Yes.

14 Q. Okay. In this case, and when I read your  
15 report and your supplemental report, I noticed several  
16 times that you refer to your field of cardiology or  
17 cardiovascular medicine, words to that effect.

18 A. Yes.

19 Q. So the opinions that you hold in this case are  
20 going to be given from the vantage point of one with  
21 that specialty?

22 A. Yes.

23 Q. You're not claiming expertise in any other  
24 area of medicine besides cardiology, are you?

25 A. No, sir.

1 Q. And do you think that it is important for an  
2 expert to limit his opinions to his area of expertise  
3 and practice?

4 A. Yes.

5 Q. And in this case, you intend to limit your  
6 opinions to the field of cardiology?

7 A. Yes.

8 Q. You don't consider yourself an expert in  
9 emergency room medicine, do you?

10 A. No, not all emergency room cases.

11 Q. What kind of training does one have to undergo  
12 in order to be an emergency room physician?

13 A. Generally, we have four years of undergraduate  
14 degree and then four years of medical school, and then  
15 one specializes in emergency room. Generally, that's --  
16 I believe it's a three- or four-year residency. I think  
17 it varies depending on where and what your training is.

18 Q. You have not done a residency in emergency  
19 medicine, have you?

20 A. No, although I served as a resident. Part of  
21 our training in medical school and in residency is  
22 serving as either a medical student or a resident in the  
23 emergency room. So there's some exposure.

24 Q. Sure, but there are exposure to many areas of  
25 medicine in medical school?

1 A. Yes.

2 Q. And one chooses a field or specialty after  
3 medical school, right?

4 A. Yes.

5 Q. You're not board-certified in emergency  
6 medicine, are you?

7 A. No, sir.

8 Q. In order to be qualified to take the board  
9 certification exam, what does one have to have?

10 A. Well, to be frank, I'm not quite sure about  
11 the specifics of emergency room medicine.

12 Q. Okay. Fair enough.

13 Whatever those qualifications might be,  
14 would it be true that you wouldn't be qualified to sit  
15 for the board certification exam in emergency medicine?

16 A. That would be correct. I would not be  
17 qualified.

18 Q. You don't regularly go to continuing medical  
19 education courses directed to emergency room physicians,  
20 do you?

21 A. No, sir.

22 Q. You don't regularly read or receive  
23 publications directed to emergency room physicians, do  
24 you?

25 A. No, sir.

1 Q. Being a cardiologist is, of course, different  
2 than being an emergency room physician, correct?

3 A. Yes.

4 Q. They see different kinds of patients than you  
5 do, they see them in different settings than you do,  
6 right?

7 A. Yes.

8 Q. As a cardiologist, do you typically treat  
9 patients who present with a chief complaint of dog bite?

10 A. No.

11 Q. Do you typically treat patients who have a  
12 history of taking LSD?

13 A. Generally, no.

14 Q. Do you consider yourself an expert in LSD?

15 A. No.

16 Q. Do you generally treat patients who are  
17 restrained in some manner when they arrive to see you?

18 A. Not commonly, but I do have exposure to those  
19 patients in the hospital or in the emergency room.

20 Q. Do you typically treat patients who are in  
21 police custody?

22 A. Once again, not commonly, but I have.

23 Q. When is the last time you have treated a  
24 patient who was restrained?

25 A. I'm going to have difficulty... I know within

1     this past year I've treated patients that have had  
2     restraints on, for example, in the emergency room or  
3     intensive care unit. Probably less than 10 patients. I  
4     can't --

5             Q.     Ever?

6             A.     No; within the past year or so.

7             Q.     Okay. Were these patients in restraints that  
8     were placed after they arrived at the hospital, or were  
9     they in forensic restraints when they were brought in  
10    for care?

11            A.     One patient was brought in restraints under  
12    police custody that I recall in the past year. The  
13    rest, I'm not sure. They were likely put in restraints  
14    afterwards, but I couldn't fully comment on it.

15            Q.     You understand from your review of the  
16    materials in this case that Mr. Troy Goode was in  
17    restraints when the police brought him to the emergency  
18    room, right?

19            A.     Yes. Yes, sir.

20            Q.     How many times would you estimate that you  
21    have seen a patient in that circumstance, brought in by  
22    the police for care in forensic restraints?

23            A.     It's rare.

24            Q.     Can you give me an estimate of how many times  
25    that has occurred, if ever, in your practice?

1 A. Maybe about once a year or so.

2 Q. Are you guessing, or do you know?

3 A. That's a rough estimate. It's not an exact  
4 number. But on occasion, we do treat emergent cardiac  
5 conditions with those patients who were brought in under  
6 police custody. So I can't give you an exact number,  
7 but it's not common. It is rare, but I do have some  
8 exposure to it. Not a lot.

9 Q. Have you ever treated a patient like Troy  
10 Goode?

11 MR. MCCORMACK: Object to the form, vague.

12 A. What's -- yeah.

13 Q. (BY MR. PHILLIPS) Well, you understand from  
14 the materials his condition when he came in and  
15 presented to the emergency department, don't you?

16 A. I've treated -- so that's not a patient I  
17 would necessarily get called on because he doesn't have  
18 an acute cardiac complaint at the time of presentation.

19 Q. Okay.

20 A. But I have been called on to manage difficult  
21 or agitated patients that are believed to have a cardiac  
22 condition. Once again, this is not a common or everyday  
23 occurrence in my practice, but sometimes we are -- we  
24 need to evaluate those patients in the emergency room.

25 Q. Do you --

1 MR. MCCORMACK: Marty, before you go on,  
2 occasionally, Dr. Parikh, I will make an objection on  
3 the record. That will be an objection that is not  
4 intended to stop the flow of questioning. It's mostly  
5 just to make a record of it. Unless I instruct you not  
6 to answer the question, you should wait for me to finish  
7 the objection and then continue answering.

8 Q. (BY MR. PHILLIPS) Would emergency room  
9 physicians generally see more patients who are brought  
10 in in restraints and in custody than you would?

11 A. Yes.

12 Q. As between cardiovascular medicine and  
13 interventional cardiology, where do you spend most of  
14 your time?

15 A. About 60 to 70 percent of my practice is  
16 general cardiovascular medicine. 30 to 40 percent is  
17 interventional cardiology.

18 Q. This case does not involve interventional  
19 cardiology, does it?

20 A. No, sir.

21 Q. Have you ever published anything that you  
22 think is relevant to any issue in this case?

23 A. I don't believe in terms of relevant to this  
24 case, no.

25 Q. Have you ever done any research that you think



1 is relevant to any issue in this case?

2 A. No, sir.

3 Q. Have you ever made any presentations to any  
4 groups on any issue that you think is relevant to the  
5 case?

6 A. No. I do work -- you know, as cardiologists,  
7 we do work closely with emergency room physicians on  
8 certain committees in our hospital, which I do sit on;  
9 for example, how to provide emergent cardiac care in  
10 certain patients coming to the emergency room. The  
11 reason I mention it is at these committees, sometimes I  
12 do have presentations, case presentations, so...

13 Q. But none that you can recall that were on  
14 issues relevant to this case?

15 A. No; not in terms of -- no.

16 Q. Would -- when is the last time that you worked  
17 a shift as an emergency room physician?

18 A. At least, let's see, 2006, 2009 -- eight  
19 years.

20 Q. Does one have to have hospital privileges  
21 specifically for working as an emergency room physician?

22 A. I would assume they do. At our hospital, they  
23 do.

24 Q. And you don't hold those privileges, do you?

25 A. In terms of what?

1 Q. Working as an emergency room physician in a  
2 hospital emergency room.

3 A. No, not working as an emergency room  
4 physician.

5 Q. If on the 1st of October, which is not long  
6 away, you decided you wanted to go to a hospital in this  
7 area and work as an emergency room physician --

8 A. Uh-huh.

9 Q. -- you wouldn't be qualified to do so, would  
10 you?

11 A. I -- you could -- to be honest, there's  
12 probably locums positions you could pick up. And being  
13 board-certified in both internal medicine and  
14 cardiovascular physician, you could probably pick up  
15 some shifts in the ER. I have not done so.

16 Q. Okay. You would first have to get privileges  
17 to work as an emergency room physician?

18 A. You'd have to go through the proper hospital  
19 credentialing process, yes.

20 Q. And without that, you wouldn't be entitled to  
21 work in the ED, right?

22 A. Correct.

23 Q. You're not an expert in the standard of care  
24 required in an emergency room physician, are you?

25 A. No.

1 Q. Have you ever treated a patient with symptoms  
2 that were consistent with excited delirium?

3 A. That's -- no, mainly because it's a diagnosis  
4 I'm not really familiar with and have come across in my  
5 training.

6 Q. Okay. Do you consider yourself an expert in  
7 excited delirium?

8 A. No.

9 Q. So if you have seen patients who've had  
10 symptoms with excited delirium, you wouldn't be able to  
11 recognize that or recall it at this point?

12 A. Well, I've never come across excited delirium  
13 in my clinical training, so it would be hard to  
14 recognize it. I think it would be hard to recognize,  
15 even given the definition of what excited delirium is.

16 Q. Have you ever treated a patient that you  
17 thought had positional asphyxia?

18 A. No, I don't -- no.

19 Q. You don't consider yourself an expert in  
20 positional asphyxia, do you?

21 A. No. I'm not sure who would be an expert in  
22 that.

23 Q. Is your practice an office-based practice or a  
24 hospital-based practice or some of both?

25 A. Both.

1 Q. Enlighten me, if you would, as to how much in  
2 each category.

3 A. For example, I'm on emergency room call  
4 generally once a week and once every fourth to sixth  
5 weekend, where we cover emergency room cases, emergency  
6 room consults, and cover the hospital cases. As  
7 interventional cardiologists, we serve often as a first  
8 line, patients even sometimes bypass the ER if they're  
9 thought to be having acute cardiac condition and we're  
10 called in.

11 So I do consider myself to have experience  
12 with high level of acuity of care and high levels of  
13 cardiac acuity in the emergency room and hospital  
14 setting, and that's a significant part of my practice.

15 Depending on how that week or month goes,  
16 you know, it could be anywhere from 30 to 60 percent of  
17 my practice, while the rest is outpatient-based,  
18 office-based medicine.

19 Q. You're aware in this case, aren't you, that  
20 Mr. Goode ingested LSD before coming to the emergency  
21 department?

22 A. Yes, sir.

23 Q. You have read about his behavior --

24 A. Yes.

25 Q. -- after ingesting LSD?

1 A. Yes.

2 Q. What do you understand his behavior was after  
3 he ingested the LSD?

4 A. He was very agitated and obviously difficult  
5 to control. That's my understanding of his initial  
6 behavior.

7 Q. There has been reference by some to his being  
8 in a psychotic rage.

9 A. Uh-huh.

10 Q. Do you agree with that?

11 A. It's hard for me to comment on that. I  
12 think -- just -- I'm not --

13 Q. Why is that?

14 A. I guess -- you're -- what -- what do you mean  
15 by "psychotic rage"?

16 Q. That's just a phrase that has used -- been  
17 used by others who have reviewed these records, and I  
18 wondered if you agreed with that characterization.

19 A. I mean, I will call him agitated. I'm not  
20 sure how to characterize psychotic rage.

21 Q. The behavior that is described as being  
22 erratic, bizarre, disruptive, whatever term one might  
23 use, do you attribute all of that in Mr. Goode to his  
24 use of LSD?

25 A. Perhaps his initial symptoms of those, but as

1 the case progressed, the agitation, erratic behavior,  
2 signs of distress could also be signs of other things  
3 such as hypoxia.

4 Q. You said it could be?

5 A. Yes.

6 Q. You couldn't make a determination as to  
7 whether it actually was, it's just one of the  
8 possibilities; is that right?

9 A. Well, those are common manifestations of  
10 hypoxia.

11 Q. But not everybody who has those manifestations  
12 has hypoxia, though, right?

13 A. Right.

14 Q. So what other causes could there be besides  
15 hypoxia?

16 A. The agitation and irritation?

17 Q. Yes.

18 A. There could be a lot of causes. Certainly  
19 toxin ingestion is high on the list.

20 Q. Would that include LSD?

21 A. Yeah, that includes LSD. Metabolic  
22 disarrangements. For example, severe electrolyte  
23 abnormalities can sometimes cause that as well. The  
24 list is probably long. Hypoxia can definitely cause  
25 that. In my opinion, just the state of being tied up

1       probably makes someone more agitated as well.

2           Q.     Fighting against the restraints and being in  
3       that agitative state while restrained?

4           A.     Yes, yes.

5           Q.     Does LSD cause a person's heart rate to  
6       increase?

7           A.     Yes.

8           Q.     Did LSD cause Troy Goode's heart rate to  
9       increase?

10          A.     I think there are a lot of factors that caused  
11       his heart rate to increase.

12          Q.     Did LSD contribute to Mr. Goode's increase in  
13       heart --

14          A.     It could have -- yeah, it could have  
15       contributed.

16          Q.     Do you think it likely did?

17          A.     I think it was a multitude of factors. To pin  
18       the percentage that was from LSD to other factors such  
19       as dehydration, just him having exercised, essentially  
20       running around before he was pinned down. Hypoxia can  
21       lead to increased heart rate, so I think it's  
22       multifactorial, his tachycardia.

23          Q.     Is dehydration a possibility in Mr. Goode that  
24       we're not able to establish?

25          A.     No. I think that if you look at the clinical

1 scenario, dehydration is -- has to be on your list.  
2 He's been outside and it's in July, I believe. He's  
3 been running around. He is -- has a really high heart  
4 rate. I mean, I think you have to consider it.

5 Q. As a possibility?

6 A. Yeah.

7 Q. Is there any testing that is done to  
8 demonstrate dehydration?

9 A. You could check -- physical exam is one of the  
10 things we use, certain signs and symptoms on physical  
11 exam and certain laboratory work can help corroborate  
12 dehydration.

13 Q. Do we have any of that lab work in this case?

14 A. No, I don't believe any lab work was drawn.

15 Q. There was some drawn, it just wasn't  
16 performed. Is that your understanding?

17 A. Right, yes.

18 Q. What advantage does a doctor actually seeing a  
19 patient have over someone like you who doesn't have that  
20 opportunity and could only look at records?

21 A. Yeah. No, there's a -- there's a big  
22 advantage in seeing the patient. It's always very  
23 important.

24 Q. How so?

25 A. You could have a relatively stable patient



1     that has abnormal vital signs, or you could have a  
2     patient with normal vital signs who's actually fairly  
3     unstable, and seeing the patient does have value.

4           Q.    You've heard the expression that you -- you  
5     don't treat the vital signs, you treat the patient?

6           A.    Yes.

7           Q.    Is that similar to what you're communicating  
8     to me?

9           A.    Yeah.

10          Q.    Does LSD cause a patient's blood pressure to  
11     go up?

12          A.    Yes, it can.

13          Q.    Does LSD cause heart arrhythmias?

14          A.    It's not a common -- in my experience in  
15     cardiovascular medicine, things that cause arrhythmia,  
16     LSD is not a common one that comes up.

17          Q.    Even if it's not a common one, is it one that  
18     can cause a cardiac arrhythmia?

19          A.    It's not well described, actually, and  
20     something I've come across in my experience.

21          Q.    Can the behavior that LSD causes a patient to  
22     have cause arrhythmia?

23          A.    It can cause a fast heart rate, yes.

24          Q.    And can it cause and does it cause stress on  
25     the heart, the behavior that LSD induces?

1           A.    It could.

2           Q.    How does behavior generated from LSD stress  
3 the heart?

4           A.    I guess what do you mean by -- when you say --  
5 what behaviors are you talking about and what -- what do  
6 you mean by "stress the heart"?

7           Q.    You've identified some things. You've read  
8 them in the records Mr. Goode is described as screaming  
9 and being combative. I think your word was "agitated."

10          A.    Right.

11          Q.    Do those things stress a person and stress  
12 a --

13          A.    Those things can cause increased heart rate  
14 and blood pressure, can cause stress on the heart, but  
15 there's really no known direct link between LSD and  
16 cardiotoxicity. Like there are very known mechanisms  
17 with other toxins, such as cocaine or alcohol. Those  
18 mechanisms aren't really identified with LSD.

19          Q.    There is, however, an indirect link if LSD  
20 causes the behavior that stresses the heart, then  
21 there's an indirect link between LSD and stress on the  
22 heart, right?

23          A.    I guess in those behaviors, could it cause  
24 some of the abnormal conditions that we're seeing such  
25 as fast heart rate or blood pressure? I don't know how

1 much direct toxicity it could do to the heart or even  
2 indirect.

3 Q. Well, if -- if LSD caused a patient to fight  
4 against restraints --

5 A. Uh-huh.

6 Q. -- would that stress the patient's heart?

7 A. Yes.

8 Q. Is LSD a stimulant?

9 A. Yes.

10 Q. I read in either your -- well, I think it was  
11 in both your report and your supplemental report --

12 A. Uh-huh.

13 Q. -- that you said that his rhythm strips were  
14 suggestive of supraventricular tachycardia?

15 A. Yeah.

16 Q. That may not be an exact quote, but that's the  
17 phrase that is there suggestive of. Do you remember  
18 reading that -- or writing that?

19 A. Yes.

20 Q. Okay. What do you mean when you say that it  
21 is suggestive of?

22 A. Can I just review my statement real quick?

23 Q. Of course.

24 (Witness reviewed document.)

25 A. Suggestive of STV. So --

1 MR. UPCHURCH: Page 2, I believe.

2 THE WITNESS: Yeah, I see that.

3 A. So some of this is very technical. I don't  
4 mean to be technical, but anybody who has a fast heart  
5 rate that is greater than 100, technically, that is a  
6 supraventricular tachycardia.

7 So if I put you on a treadmill and your  
8 heart rate, as it should, goes up to 140, you have a  
9 normal physiologic response and that's sinus tachycardia  
10 and that is an SVT. So the rhythm strip is an SVT.

11 Now, the different types -- there are many  
12 different types of SVT. Some are more physiologic than  
13 others and some are more benign, some are more  
14 malignant. Does that help answer your question?

15 Q. (BY MR. PHILLIPS) I think so. Let me see if  
16 I understand. You made that comment that the rhythm  
17 strip was suggestive of SVT because of the beats per  
18 minute of the heart?

19 A. Uh-huh.

20 Q. Yes?

21 A. Yes.

22 Q. And that doesn't mean that it's a condition  
23 that's harmful to the patient, it just means that he's  
24 got a heart rate above a certain threshold?

25 A. Yes.

1 Q. Is there any limitation on the kind of rhythm  
2 strip that you see in this record in being able to come  
3 to a diagnosis of SVT?

4 A. Yeah. So the limitations on -- when it's a  
5 short strip and it's only one lead, so that -- those are  
6 some of the limitations on that. It does give you a  
7 good sense of the -- what the heart rate is doing. And  
8 when you say "SVT," it means it's a supraventricular  
9 tachycardia. It's originating from the top part of the  
10 heart as opposed to the bottom part of the heart, which  
11 is an important differentiation.

12 So those are some of the limitations of  
13 that particular diagnostic technology.

14 And then --

15 THE WITNESS: Sorry, what was the second  
16 part of that question? Was the -- go back.

17 (Requested portion was read back.)

18 A. Was -- and being -- so that -- this is where  
19 the nomenclature gets a little bit tricky. That is an  
20 SVT, but just pure definition, it's a fast heart rate.  
21 It's originating from the top part of the heart.

22 To differentiate what type of SVT --  
23 and -- and sometimes clinically when someone just has  
24 sinus tachycardia, we don't generally call it an SVT.  
25 Technically it falls in that category. So to

1 differentiate whether that's just sinus tachycardia or a  
2 more malignant SVT, you know, it's difficult to say.  
3 And then it's limited what you could say about that  
4 rhythm strip.

5 I hope that helps answer the question.

6 Q. So is this rhythm strip consistent with sinus  
7 tachycardia?

8 A. That could be sinus tachycardia, yes.

9 Q. Is that a benign condition?

10 A. You know, that is a very elevated heart rate.  
11 So whenever you evaluate someone with such an elevated  
12 heart rate, you do have to ask yourself why the heart  
13 rate is so elevated. It may not be that benign,  
14 because -- I'll use an example that's just easy to use.

15 If you got shot and you have massive blood  
16 loss, your heart rate's going to be really high. That's  
17 not benign, because you have massive blood loss causing  
18 an increased heart rate. So when you see such an  
19 elevated heart rate, there needs to be further  
20 monitoring and evaluation as to why that person's heart  
21 rate is so high.

22 Q. In this case, we know we have a patient who's  
23 trashing and combative and agitated.

24 A. Uh-huh.

25 Q. That's an explanation for this SVT, isn't it?

1           A.    That is one explanation, but once again, when  
2   you have a patient at point A, you still need to make --  
3   you still have to monitor an abnormal vital sign like  
4   that and see which direction it goes.  Is it getting  
5   better?  Is it getting worse?  So --

6           Q.    Would it be fair to say that based upon the  
7   data we have in this case, you're not able to reach a  
8   conclusion as to whether this particular SVT was benign  
9   or not for this particular patient?

10          A.    Yes, I think -- yeah.

11          Q.    My statement was correct?

12          A.    Yes.  You --

13          Q.    Okay.

14          A.    You don't have enough determination.

15          Q.    And since you have defined SVT as merely being  
16   a heartbeat or a -- a heart rate above a certain number  
17   of beats per minute, that would mean that not all SVT  
18   requires medical treatment or electrocardioversion,  
19   right?

20          A.    Yeah.  Not all -- not all of it requires  
21   specific medication, but I think it does require further  
22   monitoring/observation, especially when that elevated  
23   heart rate is seen in conjunction with other abnormal  
24   vital signs such as decreased oxygen levels, respiratory  
25   distress.  A combination of those vital signs should be

1 more closely followed.

2 Q. And what it might show after they were  
3 followed, we don't know, right? That would be  
4 speculative to talk about monitoring that wasn't done,  
5 wouldn't it?

6 A. It's speculative to say what may have happened  
7 in this case, but in general, you can see if someone  
8 comes in with very abnormal vital signs if they're  
9 getting better or if they're getting worse or if they're  
10 staying stable. In this case, clearly, things became  
11 much worse fairly quickly.

12 Q. But we don't know whether they became worse  
13 suddenly -- it could have become worse suddenly just  
14 before the arrest, right?

15 A. Well, I think you already saw signs that there  
16 were multiple abnormal vital signs before the arrest.  
17 So when you use the term "suddenly," I don't quite  
18 follow that because it's not like all of a sudden he had  
19 very abnormal vital signs and then he got worse.

20 He consistently had very abnormal vital  
21 signs. Every single heart rate was between 160 and 180.  
22 That's very abnormal. The one oxygen saturation we have  
23 is 90 percent. That's not normal. He was clearly  
24 tachypneic. That's not normal. So these are all a  
25 combination of pretty abnormal vital signs.



1                   So when you say he's suddenly got worse, I  
2                   don't quite follow that logic. I see it as more of a  
3                   continuum of he wasn't doing well and then declined.

4                   Q.    Can each of those things you mentioned be  
5                   explained by a patient who's taken LSD and, as a result,  
6                   is combative, agitated, and thrashing?

7                   A.    I think that can play a role, but that doesn't  
8                   explain the cardiac arrest.

9                   Q.    No, I was just talking about the vital signs  
10                  you mentioned. Could -- couldn't the use of LSD and the  
11                  behavior resultant from it --

12                  A.    Yeah.

13                  Q.    -- explain each of the vital signs that you  
14                  mentioned?

15                  A.    I don't see how it would explain his hypoxia.

16                  Q.    Do you consider an O2 saturation of 90 to be  
17                  hypoxic?

18                  A.    In a -- there -- how old was this gentleman  
19                  again? A young gentleman like this, he shouldn't have  
20                  an oxygen saturation of 90 percent. That's not normal.

21                  Q.    Well, there's a difference between not normal  
22                  and hypoxic, isn't there?

23                  A.    Yeah. I would consider that to be significant  
24                  hypoxia.

25                  Q.    Just a single reading like that?

1           A.    Something that definitely needs to be followed  
2 up on.

3           Q.    Did you consider whether the O2 saturation was  
4 accurate?

5           A.    That's -- there is some legitimacy to that.  
6 However, when the patient has a cardiac arrest  
7 10 minutes after a recorded vital sign of an oxygen  
8 saturation of 90 percent, I think your assumption that  
9 it was just an abnormal reading is not a very good one.

10          Q.    Have you had experiences where O2 saturations  
11 were recorded and done so inaccurately?

12          A.    Absolutely.

13          Q.    And can it be inaccurate when the patient is  
14 moving and maybe adjusting around the little device that  
15 clips on the end of your finger?

16          A.    There's a lot of reasons to have abnormal  
17 readings.

18          Q.    Is that one of them?

19          A.    Yeah. Patient -- you don't have a good O2  
20 probe attached is one -- one reason.

21          Q.    What is an electrophysiologist?

22          A.    It's a cardiologist that specializes in  
23 arrhythmias. Often they also specialize in putting in  
24 cardiac devices such as pacemakers and defibrillators.

25          Q.    That is a subspecialty of cardiology?

1 A. Yeah, yes.

2 Q. Do you have that subspecialty training?

3 A. Not -- I'm not a board-certified  
4 electrophysiologist, but I have a -- we very commonly  
5 deal with electrical abnormalities.

6 Q. At autopsy, was there any indication of any  
7 problem with Mr. Goode's heart?

8 A. I'd have to look -- no, I don't -- I don't  
9 think there was in terms of, you know, a predisposing  
10 heart condition or an enlarged heart, no.

11 Q. At autopsy, was there any indication of any  
12 problem with his lungs or lung function?

13 A. There was a comment on edema, pulmonary edema  
14 in the lungs.

15 Q. Did he have any evidence of chronic  
16 obstructive pulmonary disease?

17 A. No.

18 Q. Is the pulmonary edema a finding that likely  
19 arose near the time of his death or after his death, or  
20 can you tell?

21 A. No. I mean, it could have been anywhere along  
22 his course. Someone who's going into pulmonary edema  
23 will exhibit a lot of these signs of hypoxia, agitation,  
24 elevated heart rate. For example, a patient with -- who  
25 comes in with congestive heart failure, they can speak

1 and talk and vocalize just normally, but they're very  
2 agitated. They have -- their heart rate is increased,  
3 and they're in pulmonary edema. So I don't -- I think  
4 that the assumption that those findings of pulmonary  
5 edema were just at the time of arrest or post arrest  
6 aren't correct.

7 Q. It could be, though, that's one possibility,  
8 isn't it?

9 A. I don't see it as a very likely possibility.

10 Q. Well, I understand your opinion, but you  
11 acknowledge it's a possibility that it could have arisen  
12 at or near the time of the arrest?

13 A. Can I see -- can I look at the review of the  
14 ER records of the intubation?

15 Q. Sure.

16 A. At the time of his...

17 (Witness reviewed document.)

18 A. Sorry, it may take me a minute.

19 MR. UPCHURCH: Are you looking for the  
20 time, Doctor?

21 A. Well, I'm looking for when he intubated the  
22 patient, what his findings were at that time.

23 (Sotto voce conversation.)

24 A. So there's no note in here about his findings  
25 on intubation.

1 (Witness reviewed document.)

2 A. Yeah, okay. So sorry, going back to your  
3 question. Is there --

4 Q. (BY MR. PHILLIPS) We were talking, I think,  
5 about whether you acknowledge that it was a possibility  
6 that the pulmonary edema could have arisen at or near  
7 the time of the arrest.

8 A. I think it's more likely that the possibility  
9 is he was in pulmonary edema or hypoxia before. It is a  
10 possibility.

11 Q. What was the last part of what you said?

12 A. It is a possibility.

13 Q. Okay. There was no evidence of asthma at  
14 autopsy, was there?

15 A. No.

16 Q. What does his ability to yell and scream tell  
17 us about his respiratory function?

18 A. So I have read the -- some of the statements  
19 that hypothesize that because he's able to yell and  
20 scream, that he had no issues with oxygenation. Just  
21 because he's able to vocalize doesn't mean that he can't  
22 have compromised oxygen levels in the lungs or blood,  
23 and doesn't mean he wasn't in respiratory distress.

24 Q. Is a patient's ability to yell and scream some  
25 evidence of respiratory status and function?

1           A.    In certain settings, for example, when someone  
2   has a physical obstruction, choking on food, if there is  
3   a complete obstruction, there's not going to be air  
4   movement and so they probably won't be able to vocalize.  
5   But in other settings, just the ability to vocalize or  
6   yell or scream doesn't necessarily correlate well with  
7   your respiratory status.

8           Q.    But you agree it is an indication of  
9   respiratory status?

10          A.    It's not always a good one.

11          Q.    It's something that a clinician seeing a  
12   patient would have an opportunity to evaluate, though,  
13   right?

14          A.    Yes.

15          Q.    You have given some opinions in your reports  
16   in this case on the impact of the prone maximal  
17   restraint position, right?

18          A.    Yes, yes.

19          Q.    Are your opinions in this case on that topic  
20   based solely on the medical literature that you have  
21   reviewed on that topic?

22          A.    Yes.

23          Q.    Before you were retained as an expert in this  
24   case, had you ever reviewed the medical literature about  
25   the prone maximal restraint position?

1           A.    No, sir.

2           Q.    Before you were retained as an expert in this  
3 case, have you ever reviewed the medical literature  
4 pertaining to positional asphyxia?

5           A.    No.

6           Q.    The literature that you cite in this case, was  
7 it given to you, or did you locate it on your own?

8           A.    I did an independent search. Some of the  
9 articles which I reference in my expert statement I  
10 asked to get those articles and Mr. McCormack did  
11 provide them for me. But all the articles I came about  
12 were from independent research.

13          Q.    Did you identify literature in your search  
14 that disagreed with your conclusion and opinions about  
15 the prone maximal restraint position?

16          A.    Yes.

17          Q.    Did you cite the contrary literature in your  
18 reports?

19          A.    Well, interesting, some of the same studies  
20 that I cite, you know, have been used to say that  
21 there's not an effect on cardiac output in the prone  
22 maximal or the prone hogtied position. I've -- if you  
23 look at the methodologies in -- in those particular  
24 studies that don't necessarily support that the prone  
25 hogtie position causes -- does not cause decrease in

1 cardiac output, there's significant flaws in those  
2 methodologies.

3 Q. And I think my question was whether you cited  
4 in your reports the literature that disagrees with the  
5 conclusion you're reaching in this case --

6 A. Yeah.

7 Q. -- or is there literature out there that  
8 you're aware of that you didn't cite?

9 A. Well, there's not a lot of literature on this.  
10 It's not a wide body of evidence and most of it I've  
11 actually included. I would say -- so -- sorry. Can I  
12 back up just a little bit?

13 So the studies that I, in particular,  
14 looked at with my expertise in cardiovascular medicine  
15 were studies that sought particular cardiac studies that  
16 imaged the heart or heart and blood vessels in the prone  
17 hogtie position. There's not much data out there. The  
18 four major studies I found, I included in my findings.

19 People do have different interpretations  
20 of some of these studies. Some people cite the same  
21 studies and say that it supports their position that the  
22 prone hogtie position does not lead to decrease in  
23 cardiac output or cause cardiovascular compromise. I  
24 actually look at the same study and say there are signs  
25 here that being in the prone hogtie position does lead



1 to cardiovascular compromise.

2 And specifically, I think that's where my  
3 expertise in this area comes in, in interpreting some of  
4 these methodologies of these studies and its effect on  
5 cardiac output.

6 So I've actually -- to answer your  
7 question, I've included some of those studies that  
8 people have cited saying that there's data that supports  
9 that the prone hogtie position doesn't cause  
10 cardiovascular compromise. I've actually cited those  
11 studies as well, so I've been comprehensive in that.

12 Q. You acknowledge --

13 A. Does that help?

14 Q. Let me see if I understand.

15 A. Yeah.

16 Q. You acknowledge that there's medical  
17 literature from peer-reviewed sources that concludes  
18 that the prone maximal restraint position does not  
19 compromise cardiac output?

20 A. The -- I would disagree with some of those  
21 conclusions.

22 Q. I understand.

23 A. Yes.

24 Q. But before we get to whether you agree or  
25 not --

1           A.    Yeah.

2           Q.    -- you acknowledge that there is peer-reviewed  
3 medical literature that concludes that the prone maximal  
4 restraint position does not compromise cardiac output  
5 that exists, doesn't it?

6           A.    I will say that --

7           Q.    Could you answer my question, and then I'll be  
8 glad to let you explain.

9           A.    In -- the prone maximal position identifying  
10 healthy subjects who have no pre -- no predisposing  
11 conditions who are only in the prone hogtie position for  
12 less than five minutes at a time, some people have  
13 concluded that yes, there is no compromise in  
14 cardiovascular output or cardiovascular compromise,  
15 that -- that does exist.

16          Q.    And then there are people who interpret the  
17 medical literature differently than you do about whether  
18 the prone maximal restraint position compromises cardiac  
19 output, right?

20          A.    Yes.

21          Q.    So -- so we have two things, we have the  
22 literature and what it says, and then we have how one  
23 interprets that literature and whether one accepts what  
24 it says, right?

25          A.    What do you mean by the first statement, the

1 literature and what it says?

2 Q. Well, you can read an article --

3 A. Uh-huh.

4 Q. -- and see the conclusion that's reached?

5 A. Yes.

6 Q. And there are studies that conclude that the  
7 prone maximal restraint position does not compromise  
8 cardiac output. That's what the paper says?

9 A. Okay.

10 Q. Agree?

11 A. Can I look at some of those papers? I mean,  
12 could you cite a specific --

13 Q. Are you aware in general that those exist?  
14 We'll talk about some in a moment.

15 A. Well, I don't know if they draw that  
16 conclusion --

17 Q. Okay.

18 A. -- that there's no effect on --

19 Q. Are you aware of experts who reached the  
20 conclusion that the prone maximal restraint position  
21 does not compromise cardiac output?

22 A. Yes.

23 Q. And is that a reasonable view for an expert to  
24 take in your view? Can you understand how an expert  
25 could legitimately take that view?

1           A.    I would disagree with that view.  I don't --  
2           so I don't know -- I mean, so no, I guess I don't see  
3           how they could take that view.

4           Q.    Let me try to make a distinction.

5           A.    I don't --

6           Q.    Sometimes --

7           A.    -- disrespect them, but...

8           Q.    Sometimes one can say here is my opinion and  
9           nobody can disagree with this legitimately.  On the  
10          other hand, one can sometimes say here's my opinion, but  
11          I understand there's a differing viewpoint from mine.

12          A.    Yes.

13          Q.    And is that what we have in this case, you  
14          have your opinion, but you recognize that there are  
15          experts who hold a differing viewpoint than yours about  
16          whether the prone maximal restraint position compromises  
17          cardiac output?

18          A.    Yes.

19                   MR. MCCORMACK:  Object to the form.

20                   You can answer.

21          A.    Do I recognize that they hold different views?

22          Q.    (BY MR. PHILLIPS)  Yes.

23          A.    That there are different views out there?

24          Q.    Yes.

25          A.    Yes, there are different views out there.

1           Q.    If it were true that the prone maximal  
2   restraint position is physiologically neutral, would it  
3   impact any of the opinions you hold in this case?

4           A.    If it were physiologically neutral?  Yeah, I  
5   think it -- yeah.  I think that there is some compromise  
6   in that position, so it would probably affect some of my  
7   views.

8           Q.    How would it affect your views if -- if it  
9   were true that the prone maximal restraint position were  
10  physiologically neutral?

11          A.    It's -- I guess it's a little difficult --  
12  it's kind of speculating on some -- I don't know.  It's  
13  hard for me to answer that.  If -- how would it change  
14  my opinion of the whole case?

15          Q.    Or the conclusion you reach about the prone  
16  maximal restraint position in this case?

17          A.    I'm sorry, I'm not following the question.

18          Q.    Okay.  Sometimes lawyers ask what is called a  
19  hypothetical question.

20          A.    Okay.

21          Q.    That is to say, assume that a particular  
22  premise is true.

23          A.    Okay.

24          Q.    And my premise is the prone maximal restraint  
25  position is physiologically neutral.

1 A. Okay.

2 Q. If that premise is true, how would it impact  
3 your conclusions in this case?

4 A. Well, I guess, given my conclusion that the  
5 prone hogtie position promoted cardiovascular  
6 compromise, it would affect that conclusion. But the  
7 other aspect of it is I -- is him being in that position  
8 for -- even if it's physiologically neutral, kind of  
9 prevented monitoring and observation of some of his  
10 vital signs, and so it may not have changed that.

11 Q. To say that the position prevented monitoring  
12 or care is not the same as saying it caused cardiac  
13 collapse, though, is it?

14 A. Those are two different things, yes.

15 Q. Okay. Was Mr. Goode less restrained at the  
16 hospital than he had been before he got to the hospital?

17 A. Was he less restrained at the hospital --

18 Q. Yes.

19 A. -- compared to when he came in?

20 Q. Right.

21 A. I think he had the same level of restraint, to  
22 my knowledge.

23 Q. Do you remember the testimony and discussion  
24 about there being additional straps across the stretcher  
25 during transport that was removed once he got to the

1 hospital?

2 A. Okay. So I'd have to look back and see  
3 exactly what it was.

4 Q. If that's true --

5 A. Okay.

6 Q. -- if those facts are true, would that mean  
7 that he's less restrained at the hospital than he had  
8 been before he got there?

9 A. So when were those straps added? Just for  
10 transport --

11 Q. Yes.

12 A. -- and the EMS and those straps were removed?

13 Q. Right.

14 A. The positioning of those straps, I'd have to  
15 look back and see exactly.

16 Q. Well, if there were straps on and then the  
17 straps were taken off at the hospital --

18 A. Uh-huh.

19 Q. -- is there less restraint at the hospital  
20 than before?

21 A. That -- yeah, that would be less restraint.

22 Q. Did you review Dr. Vilke's reports in this  
23 case?

24 A. Yes.

25 Q. And do you recognize him as being someone who

1 has researched and published in the area of positional  
2 asphyxia in pertaining to the prone maximal restraint  
3 position?

4 A. Yeah, yes.

5 Q. And did you notice in his report that he cited  
6 some 22 articles?

7 A. Yes.

8 Q. Did you read all those articles?

9 A. I did not read all those articles.

10 Q. You only read the ones that you cited in your  
11 report. Would that be right?

12 A. Well, I actually didn't comment too much on  
13 positional asphyxia in my particular expert statement.  
14 I commented more on the studies that looked at cardiac  
15 studies and cardiac inflow and cardiac output.

16 Q. But it's -- your comment is cardiac function  
17 pertaining to the prone maximal restraint position,  
18 though, isn't it?

19 A. Yes.

20 Q. Okay. So let me see if I understand the  
21 distinction you're making. One might talk about the  
22 impact, if any, that the prone maximal restraint  
23 position has on respiratory status --

24 A. Uh-huh.

25 Q. -- distinct from cardiac status?



1 A. Yes.

2 Q. And what you're telling is you're not really  
3 focusing on the respiratory part, but rather the cardiac  
4 part?

5 A. Yes.

6 Q. Okay. You have even cited to an article on  
7 which Dr. Vilke is a coauthor, haven't you?

8 A. Yes.

9 Q. Do you recognize him as an authority in the  
10 field of positional asphyxia?

11 MR. MCCORMACK: Object to the form.

12 THE WITNESS: Oh, can I answer?

13 MR. MCCORMACK: Oh, yeah, you can answer.

14 A. I guess I don't know enough to say who is an  
15 expert or not on positional asphyxia.

16 Q. (BY MR. PHILLIPS) He is one of the people who  
17 has published multiple articles or been involved in  
18 publications of multiple articles on that topic?

19 A. Yeah.

20 Q. Okay. The first article I think that you cite  
21 in your report is one with the lead author of Ho, H-O?

22 A. Yes.

23 Q. Do you have that article among your materials,  
24 Doctor?

25 A. Yes.

1 Q. If you look on page 257 of that article --

2 A. Uh-huh.

3 Q. -- down in Table 2, do you see the vital sign  
4 measurements from this study?

5 A. Yes.

6 Q. And there's a distinction made between people  
7 standing in Table 2 and people in the prone position,  
8 right?

9 A. Yes.

10 Q. And those people in the prone position --  
11 which is the position we're talking about in this  
12 case -- had normal heart rates, didn't they?

13 A. After just two minutes of the prone position,  
14 with also a 10-centimeter opening below them, yes.

15 Q. They also had normal systolic blood pressure  
16 in the prone position, didn't they?

17 A. With the same methodologies, yes.

18 Q. And normal diastolic pressure in the prone  
19 position?

20 A. Yes.

21 Q. So the Ho study does not indicate a change in  
22 vital signs as a result of being in the prone position,  
23 does it?

24 A. With its limited methodology, yes.

25 Q. But it's a study you cited?

1 A. Yes.

2 Q. Okay. If a patient's stroke volume were going  
3 down, would you expect the heart rate to go up?

4 A. Yes.

5 Q. And the heart rate in these patients didn't go  
6 up, did it?

7 A. No.

8 Q. And if there were cardiac compromise, you  
9 would expect the heart rate to go up to try to  
10 compensate for that, wouldn't you?

11 A. After two minutes, there wasn't sign of change  
12 of vital signs or cardiac output.

13 Q. So this study does not indicate evidence of  
14 cardiac compromise from the prone position, does it,  
15 based on what's actually in the study?

16 A. So if you look at one of the markers for  
17 inflow into the heart, which is one of the primary  
18 methodologies that the study was looking at --

19 Q. Right.

20 A. -- you have to wonder why they were looking at  
21 the interior vena cava, the IVC, as it's referenced.  
22 The reason you would look at the inferior vena cava is  
23 that is a good marker of blood flow that goes into the  
24 right atrium of the heart or blood flow and pressure  
25 into the heart. So there's a reason they looked at some

1 of these markers, because some of these markers can be  
2 signs of compromise.

3 So if you take 25 young, healthy patients  
4 who are only in the prone position for two minutes,  
5 sure, they didn't have a compromise in their blood  
6 pressure or heart rate or stroke volume. But even just  
7 two minutes in the prone position, and despite the fact  
8 that they had a cutout underneath them on their belly  
9 and lower chest, they still have compromised IVC filling  
10 and decreased filling into the heart.

11 So, in my opinion, just a short amount of  
12 time, despite the fact that you have these limited  
13 methodologies, you see some signs of decreased blood  
14 flow into the heart. So while you can't come to the  
15 conclusion that it -- I agree with -- that you can't  
16 come to the conclusion that this decreases cardiac  
17 output. I -- I really don't see how you come to the  
18 conclusion that a two-minute study in healthy patients  
19 who had a little cutout below them to relieve some of  
20 the pressure of being in prone position, that you could  
21 come to the conclusion that someone who is in the prone  
22 hogtie position for an hour and a half would have the  
23 same response.

24 Q. From the article, the Ho article that you  
25 cited and rely upon, the authors in that article did not

1 reach the conclusion that the prone position results in  
2 cardiac compromise or compromises cardiac output, did  
3 they?

4 A. I'm quoting now, "In our study, we found a  
5 significant decrease in the IVC dimensions with position  
6 change" [as read].

7 So there's a -- one of the markers of  
8 cardiac inflow and flow into the heart they found a  
9 significant change in.

10 Q. What they're describing, though, is a  
11 difference in the size of the inferior vena cava?

12 A. Uh-huh.

13 Q. They're not reporting on a change in volume as  
14 a result of that, right -- or a change in vital signs as  
15 a result of that; is that right?

16 A. At -- at --

17 Q. Is that right?

18 A. But you wouldn't expect to see a change of  
19 vital signs that quickly.

20 Q. Was my statement correct?

21 A. I'm going to have to review the statement.

22 Q. Okay. They were reporting -- I'll repeat it  
23 for you. They're reporting a change in the size --

24 A. Uh-huh.

25 Q. -- of the inferior vena cava --

1 A. Yes.

2 Q. -- but not reporting a change in function or  
3 volume as a result of the change in size?

4 A. So the reason you measure the size --

5 Q. Can you answer my question before we get into  
6 the explanations?

7 A. Well, I think the question has some false  
8 assumptions in terms of when you say they're just  
9 measuring the inferior vena cava and not talking about  
10 the volume or size.

11 Q. Let me try it like this, maybe it will be  
12 easier for you. They describe the changes in the size  
13 of the inferior vena cava?

14 A. Yes.

15 Q. But yet, in those patients who had those size  
16 changes, their vital signs, as reported on Table 2, were  
17 still within the normal range?

18 A. Yes.

19 Q. Okay. Another study that you cited is -- is  
20 it Savaser, S-A-V-A-S-E-R --

21 A. Yes.

22 Q. -- the lead author?

23 This article did not look at cardiac  
24 filling, did it?

25 A. It looked at IVC size, which is a measure of

1 cardiac filling.

2 Q. But there's not a specific conclusion reached  
3 as to cardiac filling, is there?

4 A. No. It talks about there are changes in the  
5 IVC seen on -- there were significant changes in the  
6 size of the IVC seen in the prone maximal restraint  
7 position with the weights on, I believe. Let me --

8 Q. But that, again, has to do with the size of  
9 the inferior vena cava?

10 A. That's a marker of flow into the heart,  
11 though; a very good one.

12 Q. I understand your interpretation of it. I'm  
13 trying to focus on what the study actually says. It's  
14 talking about the size of the inferior vena cava, right?

15 A. But there's a reason we look at that marker.  
16 It's not -- there's a reason we choose that marker to  
17 look at on transthoracic echocardiography. And why we  
18 do that measurement very commonly, it's a marker of the  
19 filling pressures in the heart.

20 Q. Does that article conclude on the first page  
21 of it under conclusions, in the abstract portion --

22 A. Uh-huh.

23 Q. -- "PMR" -- that stands for prone maximal  
24 restraint --

25 A. Uh-huh.

1 Q. -- "with and without weight force did not  
2 result in any change in CO" -- that's cardiac output --  
3 "or other evidence of cardiovascular or hemodynamic  
4 compromise" [as read].

5 That was the conclusion stated, right?

6 A. That was their conclusion, yes.

7 Q. Okay. Do you agree that this article  
8 published in the Journal of Forensic and Legal Medicine  
9 in 2013 is a reliable authority?

10 A. A reliable authority on what?

11 Q. On the topic it addresses, the effect of the  
12 prone maximal restraint position --

13 A. No; I think --

14 Q. -- on cardiac output.

15 A. -- there are significant limitations in the  
16 methodology.

17 Q. Why would you choose to cite an article to  
18 support your opinion that you say has severe limitations  
19 in its methodology?

20 A. Because if you take this study -- I believe  
21 this is also 25 healthy, male volunteers, okay? And  
22 they were put in these positions for, I believe, only  
23 three minutes.

24 (Witness reviewed document.)

25 A. Yes; subject remained in each position three



1 minutes before measurements were collected. In between  
2 the different positions, they were allowed five minutes  
3 of rest, okay? So the most they were in a prone hogtie  
4 position or a prone hogtie position with weights was  
5 three minutes at a time. That's it.

6 Even at three minutes at a time, you start  
7 to see differences -- maybe you don't see changes in  
8 cardiac output three minutes in, but you start to see  
9 changes in stroke volume, which is an important  
10 component of cardiac output. So you see a small  
11 decrease in stroke volume between a supine position and  
12 a prone maximal restraint position. That's in the  
13 result section in the abstract that you were referring  
14 to.

15 This tells me that just a short amount of  
16 time with breaks and rest in between, that there's  
17 beginning of evidence of cardiac compromise in these  
18 patients. That's why I actually included this. And it  
19 kind of goes back to your original question of, you  
20 know, did I ignore other citations? I actually looked  
21 at the studies that came to opposite conclusions and  
22 looked at the methodology and think there's significant  
23 flaws with them.

24 Q. Look on page 994 of the Savaser study that  
25 we've just been talking about.

1 A. Uh-huh.

2 Q. The conclusions are listed on the bottom  
3 right. Do you see that category?

4 A. Yes.

5 Q. Would you read the conclusion reached by this  
6 study that you cite in your report?

7 A. "Cardiac output is not significantly affected  
8 by PMR as compared with the prone or supine positions"  
9 [as read].

10 Q. With or without --

11 A. Oh. "With or without application of 50 or  
12 100 pounds of weight force to the back" [as read].

13 Q. Do you agree with that conclusion that you  
14 just read from the Savaser article that you cited?

15 A. I would qualify the conclusion that cardiac  
16 output is not significantly affected by healthy males  
17 with no predisposing condition that were only subjected  
18 to three minutes of the prone position.

19 Q. Do you agree with the conclusion as stated on  
20 page 994?

21 A. No, I do not. I don't.

22 Q. You do not agree, is that what you said?

23 A. I mean, you have -- you have to take into  
24 account the limit -- the limits of their methodologies.  
25 If -- if that conclusion is taking that into account,

1 then I would agree with it.

2 Q. In your report dated -- this is actually your  
3 amended report --

4 A. Uh-huh.

5 Q. -- July 31st, 2017, on page 3 --

6 A. Uh-huh.

7 Q. -- you cite the Savaser study in that first  
8 paragraph on the page.

9 A. Uh-huh.

10 Q. And three lines up from the bottom of that  
11 paragraph, you make the statement, "There were no  
12 changes in cardiac output in this study" [as read].

13 A. Uh-huh. But the subjects were under testing  
14 conditions for only three minutes.

15 Q. But you observed in your report that that  
16 study didn't show changes in cardiac output with the  
17 qualifications --

18 A. With the methodologies they used, correct,  
19 there were no changes in cardiac output.

20 Q. Which is more important, cardiac output or  
21 stroke volume?

22 A. I mean, they're tied together. Stroke volume  
23 is an important part of cardiac output, but your  
24 ultimate measurement is cardiac output.

25 Q. I think the third study you cite is

1 Dharmavaram. Is that close to right?

2 A. Yes, I believe so.

3 Q. And that is a study published in 2006; is that  
4 right?

5 A. Yes.

6 Q. This actually is looking at patients in the  
7 prone position for spine surgery?

8 A. Yes.

9 Q. Different circumstance than we have in this  
10 case, right?

11 A. Yes.

12 Q. Those patients would have necessarily received  
13 general anesthesia?

14 A. Yes.

15 Q. Different circumstance from our case, right?

16 A. As are the first two studies, yes.

17 Q. And if you look in that particular study,  
18 Doctor, I think it's page 1390 --

19 A. Uh-huh.

20 Q. -- it sketches out five different positions at  
21 the top.

22 A. You know what? I have some other version of  
23 this.

24 MR. MCCORMACK: Page numbers might be  
25 different, Marty.

1 THE WITNESS: Yeah.

2 Q. (BY MR. PHILLIPS) Let me show you the page  
3 I'm referencing and then you can find it.

4 A. Okay.

5 Q. Do you see that?

6 A. Yes.

7 Q. Which of those positions listed is most like  
8 prone maximal restraint position?

9 A. Well, there are definitely differences.

10 Q. Is the prone maximal restraint position listed  
11 there at all?

12 A. No.

13 Q. And would the last position, the bolster  
14 position, be the one most like the prone maximal  
15 restraint position?

16 A. Yeah, the last two, really. Yes.

17 Q. May I have that back?

18 A. Yes.

19 Q. Is 6.8 liters per minute considered normal  
20 cardiac output?

21 A. Yes.

22 Q. And if this study reflects in the bolster  
23 position 6.8 liters per minute in the prone position,  
24 that would be normal cardiac output, wouldn't it -- or  
25 in the bolster position, I should say?

1 A. Yes.

2 Q. And that, in fact, is what that study says,  
3 isn't it?

4 A. That they had -- that this was their cardiac  
5 output?

6 Q. Yes.

7 A. Yes.

8 Q. What is the range for normal cardiac output?

9 A. 4 to 6 liters per minute.

10 Q. So there could be a change in cardiac output  
11 and yet the cardiac output still be within the normal  
12 range?

13 A. Yes.

14 Q. 4.3 would be within the normal range?

15 A. Yes.

16 Q. And patients in the Savaser study had a  
17 cardiac output of 4.3 liters per minute in the prone  
18 position, didn't they?

19 A. I'd have to look back at the exact number.

20 Q. Does that sound correct?

21 A. Yes, yes.

22 Q. And stroke volume, is it measured in  
23 milliliters?

24 A. Yes.

25 Q. Is that the same measure as a cc?

1 A. Yes.

2 Q. Is there a substantial difference -- or is it  
3 clinically significant, I should say, to have the  
4 difference in 1 milliliter of stroke volume?

5 A. Generally, no.

6 Q. Can there be changes observed in testing like  
7 this that does not result in a clinically significant  
8 effect?

9 A. Yes.

10 Q. So one would have to consider both whether  
11 there is a change and then whether that change is a  
12 clinically significant one?

13 A. Yes.

14 Q. Or has a clinically significant impact, right?

15 A. Yes.

16 Q. You cite another study with the lead author  
17 being Shimazu?

18 A. Uh-huh.

19 Q. Am I close?

20 A. Yes.

21 Q. Do you have a copy of that study?

22 A. I do.

23 Q. There were three groups of patients in that  
24 study, weren't there, identified as group A, group B,  
25 and group C?

1 A. Yes.

2 Q. In group A, we had patients who had no history  
3 of myocardial ischemia or cardiomyopathy, right?

4 A. Yes.

5 Q. That is the group to which Troy Goode would  
6 belong --

7 A. Yes.

8 Q. -- isn't it?

9 He would be a group A patient --

10 A. Yes.

11 Q. -- because he has no prior cardiac history?

12 A. Correct.

13 Q. And in this particular study, the Shimazu  
14 study that you cite in your report, there was no  
15 ejection fraction changes in group A in the prone  
16 position?

17 A. But there were changes in heart rate/stroke  
18 volume. You might not really expect to see a change in  
19 ejection fraction.

20 Q. The problems noted were really in the patients  
21 with the pre-existing history, weren't -- weren't they?

22 A. What -- what do you mean by that? The  
23 problem? What do you mean by "problems"?

24 Q. The ones who were thought to have some  
25 problem -- some cardiac problem relating to positioning



1       were patients with pre-existing conditions?

2           A.    No.  I mean -- and I'm quoting on the article  
3       here now under -- on page 303 under prone values, "In  
4       all 90 patients, heart rate increase and stroke volume  
5       decrease with prone positioning resulting in a decrease  
6       in cardiac index" [as read].

7           Q.    Did the rates remain within the normal range  
8       even though there was a change in them?

9           A.    They were in the -- in group A, yes.

10          Q.    Okay.  So even though there were changes in  
11       group A, they still were within the normal range?

12          A.    Yes.

13          Q.    Okay.  And then I think the Meredith study  
14       is --

15          A.    Yes.

16          Q.    -- the last one you cited?

17          A.    Yes.

18          Q.    Do you consider all of these studies that  
19       you've cited in your report to be reliable authorities  
20       on the topics they address?

21          A.    Yes.

22          Q.    The Meredith study deals with only eight  
23       patients?

24          A.    Correct.

25          Q.    And those patients had COPD, chronic

1 obstructive pulmonary disease; is that right?

2 A. Yes.

3 Q. Troy Goode didn't have chronic obstructive  
4 pulmonary disease, right?

5 A. No, sir.

6 Q. And five of the eight patients with chronic  
7 obstructive pulmonary disease did not have a problem  
8 being in the maximal prone restraint position --

9 A. Yes.

10 Q. -- right?

11 A. Yes.

12 Q. Three of the eight patients could not tolerate  
13 those restraints?

14 A. Correct. They couldn't -- correct -- even to  
15 finish the study.

16 Q. And those patients were aged 69, 70, and 67?

17 A. Yes.

18 Q. Troy Goode was a young, healthy patient,  
19 right?

20 A. Yes.

21 Q. Other than these articles which we've just  
22 discussed which were cited in your report, have you read  
23 any others for your work in this case?

24 A. Let's take a look. In -- in doing my search  
25 and research on this, I -- yes, I came across other

1 articles. But these are the main ones I focused on.

2 Q. Your supplemental report says that you  
3 reviewed the deposition of Dr. Wecht?

4 A. Yes.

5 Q. Did you, in fact, review that deposition?

6 A. Yes.

7 Q. I didn't see it among your materials. Do you  
8 not have it here?

9 A. I don't have it with me, but I mention it in  
10 my supplemental that I reviewed it.

11 Q. You did? You did?

12 A. Yeah.

13 Q. And did you, likewise, read the exhibits to  
14 Dr. Wecht's deposition?

15 A. I may not have looked at it that closely.

16 Q. Did you know that there were medical articles  
17 attached to his deposition?

18 A. To be honest, I don't know if I was supplied  
19 the medical articles. I think I was just supplied with  
20 a transcript of the deposition.

21 Q. Did you read Dr. Wecht's testimony about the  
22 statements in the articles that were made exhibits to  
23 his deposition?

24 A. I didn't read the whole thing. Part of the  
25 reason in preparation for deposition, as I have not done

1 one before, I really wanted to see what the format and  
2 structure was like, so Mr. McCormack -- McCormack and  
3 his staff provided that for me.

4 Q. So you were reading it for style more than  
5 substance?

6 A. In a sense, yeah.

7 Q. And if those studies focused more on the  
8 respiratory argument as opposed to the cardiac argument,  
9 you really wouldn't have focussed on that anyway for the  
10 reasons you mentioned to me earlier?

11 A. Right.

12 Q. So do you intend to express any opinions about  
13 whether there is any impact on respiratory function from  
14 the prone maximal restraint position, or is that an  
15 issue that you're going to say is outside your area of  
16 expertise?

17 A. It would -- the area that I comment on more is  
18 more in my area of expertise.

19 Q. The cardiac area?

20 A. Yeah.

21 Q. Okay.

22 A. There is a close interplay between heart and  
23 lung function and cardiopulmonary status, but this is  
24 the focus of, I would say, my expert opinion.

25 Q. The focus being cardiac?

1 A. Yes.

2 Q. Not respiratory?

3 A. Yes.

4 Q. Are you familiar with the Sloane study from  
5 2014 entitled "Evaluation of the ventilatory effects of  
6 the prone maximal restraint position (PMR position) on  
7 obese human subjects"?

8 A. I believe I did come across that, but I didn't  
9 look closely into it because it focused on obese  
10 patients.

11 Q. And Mr. Goode was not obese?

12 A. Yes.

13 Q. If a patient is obese, does that increase that  
14 patient's risk of having some cardiac compromise?

15 A. In the prone position you mean?

16 Q. Yes.

17 A. Yes. In my review of the literature, it seems  
18 that that's one of the risk factors that makes you more  
19 prone to cardiac compromise.

20 Q. If this Sloane article concludes with this  
21 sentence in the abstract, "In this small study of obese  
22 subjects, there were no clinically significant  
23 differences in the cardiovascular and respiratory  
24 measures comparing seated, prone, and PMR position  
25 following exertion" [as read], do you agree that that's

1     what that study concluded?

2             A.     I'd really have to look at the study and the  
3     methodologies.

4             Q.     Well, if the study reaches that conclusion, do  
5     you agree with the statement?

6             A.     Not -- not necessarily, no.

7             Q.     Do you consider the Forensic Science  
8     International a reliable authority?

9             A.     On -- reliable authority on just --

10            Q.     Prone maximal restraint position.

11            A.     I'm not terribly familiar with -- with the --  
12     with the journal, actually. And just along those lines  
13     of, you know, do I trust it as a source, you know, I do  
14     have more confidence in the echocardiography studies  
15     that were done in cardiac journals than a forensic  
16     journal.

17            Q.     Did you read any articles in the American  
18     Journal of Emergency Medicine?

19            A.     I don't believe so.

20            Q.     Did you read the Krauskopf, K-R-A-U-S-K-O-P-F,  
21     study from 2008 that concluded, in part, that there were  
22     only minor changes in the cardiac index and output,  
23     other cardiovascular parameters were not at all  
24     influenced by weight force application?

25            A.     I'd have to look at the article.

1 Q. You haven't seen that one?

2 A. No.

3 Q. Did you look at the Schmidt article from the  
4 Journal of Emergency Medicine, 1999?

5 A. What's the title of the article?

6 Q. "The effects of positional restraint on heart  
7 rate and oxygen saturation."

8 A. I do believe I came across that article.

9 Q. The abstract section concludes, "In our study  
10 population, the use of hogtie and an alternate maximal  
11 restraint method did not result in any clinical  
12 restrictions in heart rate or oxygen saturation  
13 recoveries" [as read].

14 A. I do recall that article. I think I didn't  
15 focus on it because it looked more at the oxygen levels.  
16 Kind of going back to our comment about cardiovascular  
17 with positional asphyxia.

18 Q. I asked about it because it mentioned heart  
19 rate.

20 A. Yeah. It did comment on the heart rate, yes.

21 Q. Do you agree with that conclusion I just read  
22 to you?

23 A. Once again, I'd have to look at the article.

24 Q. Do you agree that that study concluded as I  
25 just read to you? You want to look at this statement I

1 read and tell me if I read it correctly?

2 A. I mean, sure, they could have concluded that,  
3 if that's the case.

4 (Witness reviewed document.)

5 A. Do I agree with you that they concluded that?

6 Q. Yes.

7 A. Yes.

8 Q. And the conclusion, again, is, "In our study  
9 population, the use of hogtie and an alternate maximal  
10 restraint method did not result in any clinical  
11 restrictions in heart rate or oxygen saturation  
12 recoveries" [as read].

13 And that certainly is a reputable and  
14 reliable journal, isn't it, the Journal of Emergency  
15 Medicine?

16 A. Once again, I'm less familiar with emergency  
17 room journals.

18 Q. It's -- it's outside of the literature you  
19 normally --

20 A. Yes.

21 Q. -- review?

22 MR. PHILLIPS: What would you think,  
23 Doctor, about taking a short break? We've been going  
24 for awhile. Would you like to stretch your legs?

25 THE WITNESS: Sure. Yeah, that sounds



1 good.

2 MR. PHILLIPS: Is that okay with everybody  
3 on the phone?

4 MR. GASS: That's fine, thank you.

5 MR. DILLARD: Yes, thank you.

6 (Break taken from 2:32 p.m. to 2:44 p.m.)

7 Q. (BY MR. PHILLIPS) Doctor, do you have there  
8 in your hand a copy of the medical literature that you  
9 brought with you today and it's that that you cited in  
10 your report and that we've discussed today?

11 A. Yes, sir.

12 Q. And is all of the underlining and writing on  
13 those articles yours?

14 A. Yes.

15 Q. I want to make a copy of those collective  
16 Exhibit 1.

17 (Sotto voce conversation.)

18 (Exhibit Number 1 was marked.)

19 Q. And, then, we're going to mark as collective  
20 Exhibit 2 a copy of Dr. Vilke's report with your  
21 handwriting on it.

22 (Exhibit Number 2 was marked.)

23 Q. Is that what we have here?

24 A. Yes.

25 Q. Okay. And then have we identified everything

1       that you made a mark on, Doctor?

2           A.    Yes.

3           Q.    Okay.  I see among the materials that you've  
4       reviewed, you also have something called "Statement of  
5       Facts"?

6           A.    Yes.

7           Q.    Who prepared this?

8           A.    That was provided to me by Mr. McCormack and  
9       his staff.

10          Q.    Did you rely upon this for the opinions you  
11       hold in this case?

12          A.    I -- partially; amongst the other reports that  
13       I reviewed as well.

14          Q.    All right.  We'll mark a copy of this  
15       Statement of Facts as Exhibit 3.

16                       (Exhibit Number 3 was marked.)

17          Q.    And, then, for purposes of identifying the  
18       other things that you have with you that you have  
19       reviewed, we have your report, your amended report.  We  
20       have -- I'm going to call them the fire department  
21       records, the EMS records, the Baptist hospital records,  
22       the autopsy report, and tox studies.  Did I cover all of  
23       it, or is there something more?

24          A.    That's it.

25                       MR. MCCORMACK:  Did you include the police

1 records?

2 Q. (BY MR. PHILLIPS) Police records. There was  
3 an incident report in there. Okay. Is that everything  
4 that you reviewed for your work in this case? Besides  
5 Dr. Wecht's deposition, you told me that today.

6 A. Yes.

7 Q. Okay.

8 A. And there -- as you were going through some  
9 articles, I mentioned that I did do a literature search,  
10 so there's some articles I may have come across, but not  
11 as deeply looked into or relied on. I don't know if I  
12 could list every single one, but...

13 Q. Other than the articles that we marked as  
14 collective Exhibit 1, did you keep anything that popped  
15 up on your literature search?

16 A. No.

17 Q. Okay. You also have apparently reviewed  
18 Dr. Clair's report and supplemental report?

19 A. Yes.

20 Q. Okay. Do you know Dr. Clair?

21 A. No, sir.

22 Q. Do you know of Vanderbilt?

23 A. Yes.

24 Q. What is its reputation?

25 A. It's got a great one.

1 Q. Did you recognize that Dr. Clair is the  
2 executive medical director, chief medical officer of the  
3 Vanderbilt Heart and Vascular Institute?

4 A. Yes.

5 Q. And you realize that he's a cardiologist with  
6 special training in electrophysiology?

7 A. Yes. Although I didn't realize he was EP  
8 until you just told me.

9 Q. Other than Dr. Wecht's deposition, did you  
10 review any depositions in this case?

11 A. No, sir.

12 Q. So you've not reviewed Dr. Oliver's  
13 deposition, for instance?

14 A. No.

15 Q. Or anybody's deposition that described how  
16 Mr. Goode was acting and behaving on the day in  
17 question?

18 A. No, sir.

19 Q. Do you use the DSM in your practice?

20 A. No.

21 Q. What is that?

22 A. It's a --

23 Q. What do the letters stand for?

24 A. The -- it's -- I'd have to look it up even.  
25 It's a diagnostic tool used by mainly psychiatrists in

1 terms of psychiatric diagnosis.

2 Q. You made reference to it in your supplemental  
3 report. Why would you make reference to it if you're  
4 not familiar with it and don't generally use it?

5 A. Just that, you know, the diagnosis of excited  
6 delirium, in my opinion, is not a very widely accepted  
7 diagnosis. It's -- it doesn't have a -- no true  
8 definition, no clear way of diagnosing it, even on  
9 autopsy. There's not many objective measures used to  
10 diagnose it.

11 On a standard list of diagnosis, whether  
12 that's ICD-10 or DSM, it's not listed as a diagnosis,  
13 just to further support the hypothesis that it's not a  
14 widely used or accepted diagnosis.

15 Q. Do you use the ICD, the International  
16 Classification of Diseases, in your practice?

17 A. Yes.

18 Q. And is it your position that if something is  
19 not listed in the DSM or the ICD, it's not a valid  
20 diagnosis?

21 A. No; no, that's not my point with that.

22 Q. Do you agree that there are valid diagnoses  
23 that aren't listed in those two publications?

24 A. There can be, yes.

25 Q. Do you know if positional asphyxia is listed

1 in either the DSM or the ICD?

2 A. Asphyxia is listed in ICD-10.

3 Q. But positional asphyxia is not; did you know  
4 that?

5 A. No. But mechanical asphyxia is. Asphyxia by  
6 other causes is list, instead, there.

7 Q. Are you aware that the literature publishes  
8 some other codes that are consistent with excited  
9 delirium?

10 A. I'm aware of that statement, yes.

11 Q. And that's exactly the statement you're making  
12 about positional asphyxia. It's not listed as such, but  
13 there are other topics that you think catch it, right?

14 A. Yeah. But it's -- asphyxia is still a clear  
15 diagnosis. That's summarized --

16 Q. But positional asphyxia is a different kind of  
17 asphyxia, isn't it?

18 A. I think it's well described, and whether it's  
19 mechanical asphyxia, asphyxia, it's pretty similar  
20 diagnosis.

21 Q. Is there an ICD-9 code for manic excitement?

22 A. I'm not sure.

23 Q. Well, assume there is. Is that something  
24 that's broad enough to encompass excited delirium?

25 A. I -- I don't think I would be able to comment

1 on that really.

2 Q. Are you familiar with the ICD-9 code for  
3 delirium with mixed origin?

4 A. No.

5 Q. Are you familiar with the ICD-9 code of  
6 delirium drug induced?

7 A. Come across it.

8 Q. Are you familiar with the ICD-9 code of  
9 delirium induced by drug?

10 A. I'm unaware of any of those diagnoses causing  
11 cardiac arrest.

12 Q. Are you aware of the ICD-9 code for agitation?

13 A. Yes.

14 Q. For delirium?

15 A. I know -- I -- I would assume that it exists.

16 Q. For psychomotor excitement?

17 A. I'm not sure about that, but...

18 Q. Psychomotor agitation?

19 A. Same.

20 Q. Abnormal excitement?

21 A. Same; I'm not too sure.

22 Q. Before you were retained as an expert in this  
23 case, were you familiar with excited delirium?

24 A. No, sir.

25 Q. You first learned about it for your work in

1     this case?

2             A.     Yes.

3             Q.     You have among your materials, I think, a  
4     publication on excited delirium?

5             A.     Yes.

6             Q.     And would you locate that, please?  It's part  
7     of Exhibit 1, isn't it?

8             A.     Yes.

9             Q.     Is it the American College of Emergency  
10    Physicians White Paper Report on Excited Delirium  
11    Syndrome?

12            A.     Yes.

13            Q.     Does the American College of Emergency  
14    Physicians, based upon your review of that white paper  
15    that you hold in your hand, recognize excited delirium  
16    syndrome as a valid diagnosis?

17            A.     Yes.

18            Q.     And a valid cause of death?

19            A.     Yes.

20            Q.     And when you made a comment in your report to  
21    the effect that at least one professional association  
22    has recognized excited delirium as a diagnosis and cause  
23    of death, you were referring to the American College of  
24    Emergency Physicians in this white paper?

25            A.     Yes.



1 Q. Do you know that the National Association of  
2 Medical Examiners also recognizes excited delirium as a  
3 valid diagnosis?

4 A. Yes.

5 Q. And cause of death?

6 A. Yes.

7 Q. Those are two well-respected organizations,  
8 aren't they?

9 A. Yes.

10 Q. So you don't dispute that excited delirium  
11 exists as a diagnosis reported in the medical  
12 literature, do you? You're holding it in your hand.

13 A. No. I just -- I do dispute its link to --  
14 some of its proposed links to cardiac arrest. I --  
15 there's no --

16 Q. But you acknowledge that the medical  
17 literature recognizes --

18 A. Yes.

19 Q. -- excited delirium as a diagnosis?

20 A. Yes.

21 Q. In fact, you read that yourself when you  
22 looked at that white paper, didn't you?

23 A. Yes.

24 Q. LSD ingestion has been reported to cause  
25 excited delirium, hasn't it?

1           A.     According to this report, yes.

2           Q.     And, in fact, that is the report that you  
3     have, the white paper from the American College of  
4     Emergency Physicians, that report says that LSD has been  
5     described as precipitating excited delirium, right?

6           A.     Yes.

7           Q.     And do you accept that conclusion in that  
8     white paper that's part of Exhibit 1?

9           A.     I guess that's the conclusion that the paper  
10    has come to.

11          Q.     Did you make any attempt to review the white  
12    paper from the American College of Emergency Physicians  
13    on Excited Delirium Syndrome and apply it to this case  
14    and determine what symptoms Troy Goode [pronouncing] had  
15    that were consistent with Excited Delirium Syndrome as  
16    identified in that paper?

17                   MR. MCCORMACK:   Troy Goode.

18                   MR. PHILLIPS:   I'm sorry.   Troy Goode, I  
19    apologize.

20          A.     Could you help me understand the question?  
21    Did I --

22          Q.     (BY MR. PHILLIPS)   Yes.   You recognize that in  
23    the White Paper Report on excited delirium, which you  
24    hold in your hand that's part of collective Exhibit 1,  
25    part of what's described there are certain symptoms

1 consistent with Excited Delirium Syndrome, those that  
2 have been reported?

3 A. Yes.

4 Q. You're aware of that?

5 A. Yes.

6 Q. My question is: Did you try to take those  
7 symptoms that have been reported that are consistent  
8 with excited delirium and look and see if Troy Goode's  
9 presentation was consistent with those symptoms or not,  
10 or is that something that's beyond the scope of what  
11 you're doing in the case?

12 A. I guess I've never actually gone through the  
13 exercise of what you said, if I went through each  
14 particular symptom and linked it to the symptoms he was  
15 having or exhibiting.

16 Q. Is that something that's beyond the scope of  
17 your expertise and beyond the scope of what you intend  
18 to comment on in this case?

19 A. Yes.

20 Q. In the white paper that you have there, the  
21 pages I have are not numbered. Are yours?

22 A. They're not.

23 MR. MCCORMACK: I don't think any of them  
24 are.

25 Q. (BY MR. PHILLIPS) Okay. Can you locate

1 Table 4?

2 A. Yes.

3 Q. On the right side, you see the heading that  
4 said conditions that cause sudden death?

5 A. Yes.

6 Q. The first sentence under that heading says,  
7 "Sudden unexpected death is the hallmark of fatal  
8 excited delirium syndrome" [as read], right?

9 A. Yes.

10 Q. Is this the only thing that you have reviewed,  
11 that white paper, pertaining to excited delirium?

12 A. There was one other article that was  
13 essentially -- it was almost the same article. I'm  
14 trying to remember the name of that now.

15 Q. Is this a piece of literature that you sought  
16 out as part of your literature search --

17 A. Yeah.

18 Q. -- or was it provided to you?

19 A. No. I -- I can probably remember what it is  
20 now if I look at this.

21 Q. No; I'm talking about the white paper itself.  
22 Is that something that you located yourself and  
23 reviewed?

24 A. Yes. Once I reviewed Dr. Vilke's statement, I  
25 sought this out.

1 Q. Okay. Did you find that Dr. Vilke's statement  
2 was consistent with the white paper?

3 A. Yes.

4 Q. Now, I think you were about to tell me about a  
5 possible other article that you reviewed pertaining to  
6 excited delirium. Are you able to --

7 A. Yes. It was very similar to this white paper.  
8 I thought I had included it in here.

9 (Witness reviewed document.)

10 A. It was kind of a summary on excited delirium  
11 syndrome and it was almost the same article.

12 Q. Contained very similar information --

13 A. Yes.

14 Q. -- to what's in your white paper?

15 A. Yes.

16 Q. I'm going to mark as the next exhibit a copy  
17 of the notice for your deposition.

18 (Exhibit Number 4 was marked.)

19 Q. The notice asks you, Doctor, to bring certain  
20 things with you today and we have identified a lot of  
21 material that you brought. But for completeness, I'll  
22 ask you if you have brought anything else with you today  
23 in response to the deposition notice other than what  
24 we've already identified for the record?

25 A. I'm sorry, have I brought anything else?

1 Q. Yeah. Take a look at this document --

2 A. Okay.

3 Q. -- and you'll see that it asks you to bring  
4 things with you to the deposition today.

5 (Witness reviewed document.)

6 A. Okay.

7 Q. My question to you is whether you have any  
8 other materials to furnish me in response to the  
9 deposition notice other than those things that we've  
10 already identified together?

11 A. The article that I mentioned that was very  
12 similar to this one.

13 Q. Yes.

14 A. Yeah.

15 Q. But you don't have that --

16 A. I don't have that on me, no.

17 Q. And you don't have it anywhere else, do you?

18 A. I'd have to look it up again and -- I don't  
19 have a physical copy.

20 Q. Okay. You've not reviewed any photographs in  
21 this case, have you?

22 A. No. A photograph was provided to me by  
23 Mr. McCormack and his staff initially. Mr. Goode being  
24 wheeled into the emergency room was on photograph  
25 originally that was provided to me.

1 Q. I didn't see that among your materials.

2 A. Yeah.

3 Q. Did you discard the photograph?

4 A. I never -- I guess I don't have a physical  
5 copy of it.

6 Q. Was it of any significant to any opinion you  
7 plan to express?

8 A. Not particularly.

9 Q. Have we covered everything that you've  
10 reviewed in order to form your opinions in this case?

11 A. Yes, sir.

12 Q. Okay. Your report says that in the last four  
13 years, you've not testified as an expert --

14 A. Correct.

15 Q. -- right?

16 And -- and your testimony today is you've  
17 never testified as an expert during any time period?

18 A. Yes.

19 Q. Have you done expert case reviews before this  
20 one?

21 A. You mean for the medical literature or --

22 Q. Let me clarify. Mr. McCormack or Mr. Edwards,  
23 or somebody from their office, contacted you and asked  
24 you to review a case and give opinions?

25 A. Yes.

1 Q. That's an example of what I mean by "review."  
2 And so my question is: Have you conducted that kind of  
3 review on any occasion, other than pertaining to the  
4 Goode matter we're here to discuss today?

5 A. No, sir.

6 Q. Have you made any notes about this case other  
7 than your markings on collective Exhibit 1?

8 A. No. I mean, have I maybe scribbled something  
9 on a piece of paper to remind myself what to print?  
10 Probably. But nothing -- I don't think anything  
11 substantial.

12 Q. Have you had any correspondence, including  
13 emails with Mr. McCormack, Mr. Edwards, or their office?

14 A. I -- Mr. McCormack and I have had email  
15 correspondence, the majority of them to help schedule  
16 timing of deposition, timing of us coordinating phone  
17 call, and my request for him -- for some of the articles  
18 that are present here --

19 Q. So there's --

20 A. -- that have been provided for me.

21 Q. There's nothing substantive in any of those  
22 emails other than your asking him to provide you these  
23 articles and he did so?

24 A. Yes.

25 MR. PHILLIPS: Do we have copies of those



1 emails pertaining to the article request, Kevin?

2 MR. MCCORMACK: I don't have them on me.  
3 I'm happy to provide them to you.

4 MR. PHILLIPS: Okay. Thank you. I would  
5 appreciate that.

6 Q. (BY MR. PHILLIPS) Have you submitted --

7 A. Oh, sorry. One -- and other things included,  
8 for example, the expert statements that were provided to  
9 me by his office.

10 Q. Yes.

11 A. The communications.

12 Q. Communications regarding your expert reports?

13 A. Yeah.

14 Q. Yeah.

15 Have you submitted any bill for your work  
16 in this case?

17 A. Yes.

18 Q. Do you have those with you?

19 A. Sorry, I do not have those bills. I have a  
20 summary of our compensation agreement.

21 Q. All right. Let's mark as late filed exhibit  
22 whatever the next one is the emails pertaining to the  
23 articles that you identified. And let's mark as the  
24 next late filed exhibit the bills that you've submitted  
25 in this case.

1 MR. MCCORMACK: What exhibit number are we  
2 on?

3 THE REPORTER: I believe those are going  
4 to be 5 and 6.

5 MR. MCCORMACK: 5 and 6.

6 (Exhibit Numbers 5 and 6 were marked.)

7 Q. (BY MR. PHILLIPS) You said that you could  
8 summarize for me your compensation agreement, I think?

9 A. Yes.

10 Q. What is it?

11 A. It was -- prior to the deposition, any work  
12 was \$300 per hour, plus expenses. And then deposition  
13 or trial-related expenses plus -- \$400 an hour.

14 Q. Will your bills reflect how much time you  
15 actually had spent working on the case before the  
16 deposition started today?

17 A. Not the current bill, no. Not the one I have,  
18 no.

19 Q. Well, when we look at all of your bills  
20 together --

21 A. Yeah.

22 Q. -- are they going to reflect the amount of  
23 time you spent?

24 A. Yes.

25 Q. Okay. Have you ever advertised your services

1 as an expert?

2 A. No.

3 Q. Did you bring a current CV?

4 A. I did not bring that.

5 Q. Is it the same one that was provided to us  
6 with your report?

7 A. Yes.

8 Q. It has not changed --

9 A. No.

10 Q. -- since then?

11 A. No.

12 Q. You were asked to provide a copy of any facts  
13 or data that you were provided from plaintiff's counsel,  
14 and we have that statement of facts that we marked.

15 A. Yes.

16 Q. Is there anything more?

17 A. That photograph.

18 Q. Right.

19 A. The expert statements, deposition of  
20 Dr. Wecht, the articles I requested.

21 Q. In your report of January 31st, 2017, in the  
22 second paragraph, you make a reference to a narrative  
23 summary of facts surrounding the case by counsel for  
24 Ms. Goode. Is that the document summary of facts that  
25 we already marked?

1 A. Yes.

2 Q. You've received no other factual summary  
3 besides that?

4 A. No, sir.

5 Q. You were asked to bring text, treatises,  
6 articles that you reviewed or relied upon for your  
7 opinions, and you've done that and we've already marked  
8 those, right?

9 A. Yes.

10 Q. Do you know how plaintiff's counsel in this  
11 case located you?

12 A. Yes.

13 Q. How?

14 A. Through -- Mr. McCormack and I are  
15 acquaintances through a long chain. Let me try to get  
16 it right. His -- Mr. McCormack's wife's father, his  
17 second cousin's -- her husband and my father are old  
18 friends. So we --

19 Q. Who is a cousin with whom?

20 A. Mr. McCormack's wife's father is second  
21 cousins with my dad's friend's wife. Yeah.

22 Q. Okay. So there's no kinship between your  
23 family and Mr. McCormack's in-laws?

24 A. No.

25 Q. Did you know Mr. McCormack before you were

1 contacted to review this case?

2 A. Because of some of the family ties with  
3 parents, friends, cousins, we've been at a couple  
4 weddings together that we've both been invited to.

5 Q. Where were the weddings?

6 A. One was in Hawaii, and there was another one  
7 in -- where was the other wedding?

8 THE WITNESS: I'd have to remember if you  
9 were at the one in Seattle or not.

10 A. I can't remember.

11 Q. (BY MR. PHILLIPS) When was the Hawaii wedding  
12 that and you Mr. McCormack attended?

13 A. That was last fall, November of 2016.

14 Q. Was that after you were contacted about  
15 reviewing this case?

16 A. That preceded -- that preceded that.

17 Q. Which preceded?

18 A. The wedding preceded contact about the case.

19 Q. How long after the Hawaii wedding in November  
20 of 2016 were you contacted about reviewing the Goode  
21 case?

22 A. I think in -- when was the original statement?  
23 In January?

24 Q. In January of 2017.

25 A. In January. So either December or January.

1           Q.    How long were you in Hawaii with  
2   Mr. McCormack?

3           A.    Well, I was there for a couple weeks.  Our  
4   common time together was at the wedding and the wedding .  
5   reception, so, you know, a couple hours at the wedding,  
6   a few hours at the reception.

7           Q.    And when was -- go ahead.

8           A.    It was -- there were a lot of people there.

9           Q.    Did you talk to Mr. McCormack at the Hawaii  
10   wedding?

11          A.    Yeah; yes.

12          Q.    Did you know him before then?

13          A.    I knew of him.  I -- frankly, I can't remember  
14   the first time we met.  But I knew him as this family  
15   friend's husband.

16          Q.    Had you communicated with him at all even  
17   socially before the Hawaii encounter?

18          A.    Potentially at another common event, like a  
19   wedding, but not directly to -- with each other.

20          Q.    When was the wedding before the Hawaii  
21   wedding?

22          A.    I'd -- I'd really have to kind of go back.

23          Q.    Just give me an estimate of the time.

24          A.    Within the past year before that or so.

25          Q.    Okay.  And do you know where that was?

1 A. No, I don't. I mean --

2 Q. What was your contact with Mr. McCormack at  
3 the prior wedding?

4 A. Similar type of thing. We were both invited  
5 to these events.

6 Q. Other than attending these two weddings, have  
7 you had any other contact with Mr. McCormack?

8 A. Yeah. Another kind of -- I use the term  
9 "family get-together" loosely as there's actually no  
10 blood relationship, but there was a get-together and we  
11 were both invited to that as well.

12 Q. When was that?

13 A. That was earlier this year.

14 Q. 2017?

15 A. Yes.

16 Q. Where?

17 A. That was in Las Vegas.

18 Q. How long?

19 A. Two days.

20 Q. Did the two of you do anything together in  
21 Vegas?

22 A. There were a group of 11 of us that  
23 were together.

24 Q. Are you going to tell me that what happens in  
25 Vegas stays in Vegas?

1 (Laughter.)

2 Q. Did you do any social things together in  
3 Vegas?

4 A. We did.

5 Q. What?

6 A. Oh, we -- there were 10 or 11 of us and we had  
7 rented out a house. We all stayed together. I -- you  
8 know, it was the beginning of the NCAA basketball  
9 tournament. We watched basketball.

10 Q. Did you watch basketball together?

11 A. Yeah. It was pretty tame.

12 Q. Any other --

13 A. Played some sports.

14 Q. Any other trips or gatherings that you and  
15 Mr. McCormack have had?

16 A. No.

17 Q. Did you communicate with him about this  
18 lawsuit at any of these places where you've gathered  
19 with him?

20 A. The initial one, we struck a conversation that  
21 I was a cardiologist.

22 Q. In the Hawaii wedding?

23 A. At the initial wedding.

24 Q. The one before Hawaii?

25 A. No, the one in Hawaii.



1 Q. Okay.

2 A. That -- that kind of -- I think he  
3 recognized that -- you know, asked me about my  
4 profession and I was a -- I was a cardiologist.

5 The only communications we had in Las  
6 Vegas were to try to -- scheduling issues. At that  
7 point, I believe we were trying to schedule a deposition  
8 that was eventually canceled. But we didn't other than  
9 that.

10 Q. Do you know Mr. Edwards?

11 A. No. I mean, other than through communications  
12 that I've had with him --

13 Q. Do you know --

14 A. -- regarding this case.

15 Q. -- anybody else in that law firm, the Ballin,  
16 Ballin, Fishman firm in Memphis?

17 A. No, sir.

18 Q. Have you ever had any professional  
19 relationship with Mr. McCormack or Mr. Edwards before  
20 this case?

21 A. No.

22 Q. When you were first contacted, how were you  
23 contacted?

24 A. Via email -- or was it a phone call? I really  
25 can't remember if it was a phone call or email. I'd

1 have to look back.

2 Q. If it was by email, can you search for that  
3 and provide those emails to us where you were initially  
4 contacted about the case?

5 A. Yes.

6 Q. We'll mark those as the next late filed  
7 exhibit.

8 Do you remember what you were told about  
9 the case?

10 A. That there's a case he was potentially  
11 interested in me reviewing, and that's when I was  
12 provided the summary of facts and --

13 Q. Is it actually statement of facts?

14 A. Or sorry, statement of facts. And the  
15 hospital records, the EMS records, the fire report  
16 records. I think that's what I was initially provided,  
17 and I was later provided the autopsy reports.

18 Q. Did he tell you anything about the plaintiff's  
19 allegations or theory in the case?

20 A. The -- what? I don't even know what theory  
21 you're referring to, so...

22 Q. Well, you understand that the plaintiff has a  
23 theory as to what happened in this case and why  
24 Mr. Goode died? Did he explain any of that to you in  
25 the initial contact?

1           A.    The initial contact was initially --  
2   surrounded this discussion of SVT, actually. And to  
3   help him understand SVT. That's kind of where it  
4   started, actually.

5           Q.    Okay.

6           A.    Which is, I think, why when we made the  
7   cardiology connection, that's kind of -- the discussion  
8   went on from there.

9           Q.    Okay. Have you discussed this case with  
10   anybody other than Mr. McCormack?

11          A.    What's Tim's last name?

12          Q.    Mr. Edwards?

13          A.    Mr. Edwards. I think we've had some email  
14   communications and email communications with his staff  
15   that would be included on...

16          Q.    I didn't mean to do this in piecemeal fashion,  
17   but I've wound up doing it. I would like to have  
18   whatever discoverable email communication that has  
19   existed between the two of you.

20                   MR. PHILLIPS: Can we just make that part  
21   of the last late filed exhibit I marked?

22                   MR. MCCORMACK: You want to make that part  
23   of Exhibit 7?

24                   MR. PHILLIPS: Was that the last one?

25                   MR. MCCORMACK: I believe so.

1 MR. PHILLIPS: Yeah, just to keep from  
2 having more exhibits.

3 MR. MCCORMACK: Sure.

4 MR. PHILLIPS: And you'll --

5 MR. MCCORMACK: Yeah, we'll -- I'll review  
6 them and --

7 MR. PHILLIPS: Sure.

8 MR. MCCORMACK: -- anything that's  
9 discoverable, we'll send.

10 MR. PHILLIPS: Good, thank you.

11 Q. (BY MR. PHILLIPS) Do you know any of the  
12 other experts in this case, Dr. Parikh?

13 A. No, sir.

14 MR. PHILLIPS: These other lawyers have  
15 been waiting most patiently, so I think out of respect  
16 for them, I'm going to stop asking questions for now and  
17 let them ask questions for awhile. It will give me a  
18 chance to reflect and see if there's anything else I  
19 want to ask you. When they finish, I may have  
20 additional questions, but I'm going to let them ask some  
21 questions for now. I appreciate your time very much.

22 THE WITNESS: Thank you.

23 EXAMINATION

24 BY MR. UPCHURCH:

25 Q. Dr. Parikh, good afternoon. My name is David

1 Upchurch. We met just prior to your deposition earlier  
2 today.

3                   You are a member of the American College  
4 of Cardiology, are you not?

5           A.    Yes, sir.

6           Q.    By virtue of your membership in the American  
7 College, are you familiar with the American College of  
8 Cardiology Code of Ethics that they have?

9           A.    Yes. Not verbatim, but I'm aware that they  
10 exist.

11          Q.    Yes, sir.

12                   Are you generally familiar -- I'll tell  
13 you it's Section 6 of -- of that code on expert witness  
14 testimony. Have you reviewed that in connection with  
15 your activities in this case?

16          A.    I have -- I have not reviewed that.

17          Q.    6.1 of that says, "A member must be an  
18 acknowledged expert having the appropriate education and  
19 experience in the specific area in which he or she is  
20 testifying. A member shall not misrepresent his or her  
21 education and experience" [as read].

22                   6.2 of that statement says, "Expert  
23 witness testimony is considered the practice of medicine  
24 and should be provided in an objective manner using  
25 medical knowledge to form expert medical opinions that

1 are subject to peer review" [as read].

2 Do -- do you understand and agree to be --  
3 to follow each of those statements that I've just read  
4 to you?

5 A. Yes.

6 Q. Now, following up on the first statement, you  
7 have identified your field of expertise as cardiology?

8 A. Yes.

9 Q. You have told Mr. Phillips that you are not  
10 holding yourself out as one having expertise in the  
11 field of emergency medicine?

12 A. Correct.

13 Q. You would likewise say, would you not,  
14 Dr. Parikh, that you are not holding yourself out as an  
15 expert in the field of emergency department nursing?

16 A. Correct.

17 Q. You have identified for Mr. Phillips the  
18 documents that you have reviewed in connection with your  
19 opinions that you have given in this case. This -- this  
20 question: Has there been any document or item or  
21 material that you have requested that you have not  
22 received?

23 A. You mean when I requested a certain article  
24 or --

25 Q. I guess what I'm trying to explore with you,

1 has there been any part of this case, any document, any  
2 record, any deposition that you wanted to see --

3 A. Oh, I see, that wasn't --

4 Q. -- that you've requested that hasn't been  
5 provided to you?

6 A. No.

7 Q. Look with me, please, sir, on page 1 of your  
8 January 31, 2017, report.

9 A. Okay. I don't have -- I have my amended  
10 report here, but I'd have to look back to see the older  
11 report.

12 MR. MCCORMACK: Do you have a copy of  
13 that?

14 Q. (BY MR. UPCHURCH) If you'll look on your  
15 amended report --

16 A. Uh-huh.

17 Q. -- at the last paragraph which begins, "During  
18 the time."

19 A. Sorry, the last?

20 Q. It's on the last paragraph on my copy. It  
21 begins -- it's on page 1, last paragraph begins --

22 A. "During this time," okay.

23 Q. -- "during this time." If you'll look at the  
24 second sentence, it begins "given" and it states, "Given  
25 that the patient had a prior history of asthma" [as

1 read].

2 A. Uh-huh.

3 Q. And it goes on. I want to ask you a question  
4 about the reference to the asthma. Do you find any  
5 evidence on your review of the record that Mr. Goode had  
6 any activation or exacerbation of his asthma during the  
7 events that are at issue in this case?

8 A. It doesn't appear so.

9 Q. Certainly don't want to wade back through your  
10 discussion with Mr. Phillips on SVT --

11 A. Sure.

12 Q. -- but let me see if I have a general  
13 understanding of what you have said to him. And that is  
14 that SVT is, in essence, an umbrella term used to  
15 describe tachycardias that emanate from a particular  
16 area of the heart, true?

17 A. Yes.

18 Q. And you told us without going through each  
19 particular type of SVT that there are multiple types of  
20 SVT, true?

21 A. Yes.

22 Q. One of those types, as I understand it, is a  
23 physiological sinus tachycardia?

24 A. Yes.

25 Q. Would you agree, based upon your review of the



1 records, that the most likely type of SVT that Mr. Goode  
2 had was a physiologic sinus tachycardia?

3 A. Yes.

4 Q. Define for us what physiologic sinus  
5 tachycardia is.

6 A. It is your normal rhythm. Sinus rhythm is our  
7 normal rhythm. When that rate is elevated above 100,  
8 it's considered sinus tachycardia. So, essentially, he  
9 had a normal rhythm in the sense that there wasn't a  
10 malignant arrhythmia, but his heart rate was going very  
11 fast and was very elevated.

12 Q. And I think you told Mr. Phillips that one of  
13 the physiologic responses that is involved in this case  
14 would be the psychological manifestations or effects of  
15 the LSD that Mr. Goode ingested, true?

16 A. Yes.

17 Q. If you'll look on page 2, please, sir, of your  
18 supplemental report, the -- in the middle, there is the  
19 heading "hospital care."

20 A. Yes.

21 Q. If you'll direct your attention, please, sir,  
22 to the second sentence beginning "on initial exam." It  
23 makes reference to facial trauma or contusions. Do I  
24 understand correctly that based upon the materials that  
25 you have provided, you've not seen any evidence of

1 facial trauma or contusions?

2 A. Well, in looking at the ER records on the  
3 physical exam or in the history component, there was no  
4 mention of those -- the facial trauma or contusions, but  
5 those presence -- those findings were present on the  
6 autopsy. Did I physically see them?

7 Q. Well, my question -- let me see if I can ask a  
8 better one.

9 A. Yeah.

10 Q. Have you provide -- have you been provided any  
11 photographic documentation that evidences any such  
12 trauma or abrasions?

13 A. The photograph I was provided was not a level  
14 of detail that I could do a proper physical exam or  
15 assessment.

16 Q. All right, sir. Could you identify for us how  
17 this statement with respect to facial trauma bears upon  
18 your opinions with respect to the field of cardiology?

19 A. In terms -- it -- so when you look at the  
20 constellation of how he presented, an elevated heart  
21 rate, tachypnea with an elevated respiratory rate, a  
22 decreased O2 saturation, whether you're an ER physician,  
23 a medicine doctor, a cardiology, you should -- a  
24 cardiologist, you should recognize that that is a  
25 constellation of very abnormal vital signs and that

1 patient needs a full assessment.

2 And it was difficult to assess this  
3 patient. And partly, I think things weren't properly  
4 assessed because of the position he was in. So it's  
5 not -- I guess it's not a specific cardiovascular care,  
6 but I don't think you have to have a specific expertise  
7 to say that these vital signs should have been monitored  
8 and addressed.

9 Q. All right, sir. Would I be accurate, though,  
10 in understanding the -- the documents and materials that  
11 you've reviewed in this case, you would have no factual  
12 basis to opine, would you, that facial trauma was  
13 present at triage?

14 A. No. This -- the fact that there is facial  
15 trauma was -- I -- I can't say that, but it was present  
16 on autopsy.

17 Q. And the same answer would hold true for the  
18 contusions or leg abrasions or other contusions that are  
19 referenced in that sentence. You would have no factual  
20 basis to testify to this court and jury as to when those  
21 were present on this gentleman?

22 A. The -- no, I couldn't comment on the exact  
23 time that they occurred.

24 Q. Nor do you have any factual basis to offer to  
25 a court and jury as to how these abrasions or contusions

1 occurred?

2 A. I mean, some of the contusions -- he had a dog  
3 bite. We know that that was part -- so we have some  
4 evidence based on the summary that we provided where  
5 these contusions could have come from. But you're  
6 right, me personally, I can't say at exactly which time  
7 and what happened and...

8 Q. All right, sir. If you'll again, please, sir,  
9 look with me on page 2 of your supplemental report under  
10 the heading hospital care, looking at the paragraph  
11 beginning "in addition."

12 A. Uh-huh.

13 Q. That first sentence makes reference to  
14 diminished cardiac output.

15 A. Uh-huh.

16 Q. Could you define for us, please, sir, what  
17 cardiac output is?

18 A. By the strict definition, generally cardiac  
19 output is measured in liters per minute, so the amount  
20 of blood that the heart ejects or produces in a period  
21 of a minute time.

22 Q. And a normal range would be what?

23 A. 4 to 6 liters per minute.

24 Q. How does one measure or quantify one's or  
25 one's patient's diminished cardiac output?

1           A.    Man, this could go a while.   Okay.   Let's --  
2   let me try to be succinct.   There are a lot of different  
3   methods in measuring cardiac output.

4                        Sorry, your question -- how do you measure  
5   cardiac output in general?   This -- this could be really  
6   broad, so help me narrow it down a little bit.

7           Q.    Well -- and I -- I appreciate that.   What I'm  
8   trying to get at is, is there an objective measure by  
9   one -- by which one can compute a patient's cardiac  
10   output so that one can say, Mr. Upchurch, your cardiac  
11   output is reduced or low?

12          A.    Okay.   There are a variety of different  
13   methods of calculating cardiac output.   It's a term we  
14   use in medicine is something called the gold standard.  
15   You know, what is the best test to measure cardiac  
16   output?

17                       The best test is an invasive heart  
18   catheterization -- a right heart cath, where you go  
19   inside the heart, you measure certain variables, and you  
20   calculate a cardiac output.   Now, you can imagine that  
21   you're not going to do that on everybody, okay.

22                       So the other approaching gold standard is  
23   cardiac MRI.   Once again, not very feasible in -- in a  
24   lot of patients.   You know, it's a long test.

25                       So because the gold standards are

1     difficult and you can't widely apply them, we use  
2     different tools to help us assess or get an  
3     approximation of cardiac output. Immediately on bedside  
4     evaluation of a patient, things like your blood  
5     pressure, heart rate, oxygen saturation, and exam are --  
6     can be important markers or surrogates of cardiac  
7     output. If you have really bad cardiac output,  
8     generally, you're going to be tachycardia and  
9     hypotensive or hypoxic. So they can be signs of  
10    decreased cardiac output.

11                   The studies that I comment on specifically  
12    use the modality of either transthoracic  
13    echocardiography, which is an ultrasound of the heart,  
14    or nuclear medicine, which is another mode of taking  
15    pictures of the heart with a nuclear camera. Those --  
16    they're not quite as good as the gold standard of a  
17    heart catheterization or an MRI measuring cardiac  
18    output, but they're very good.

19                   So I hope that helps answer your question  
20    a little bit. There's a lot of different ways to  
21    measure cardiac output. Some are immediately available.  
22    Some are more complex, invasive procedures.

23           Q.     Thank you for that explanation. In -- in  
24    light of the means that you've just identified to  
25    objectively determine a patient's cardiac output, am I

1 right in understanding that, in this case, you cannot  
2 state to a reasonable degree of medical certainty or  
3 probability what Mr. Goode's cardiac output was in the  
4 emergency department within the events that we're  
5 talking about?

6 A. You're right. I mean, I -- there's no -- I  
7 can't give you a certain number of what his cardiac  
8 output was, but there was certain gross abnormalities  
9 that were -- were crying for attention. You know, the  
10 elevated heart rate, decreased oxygen levels, his  
11 respiratory distress.

12 Q. All right, sir. Identify for us, please, sir,  
13 the respiratory distress to which you refer for  
14 Mr. Goode during the subject hospitalization?

15 A. Yeah. So his -- his respiratory rate was  
16 elevated. And let's turn to -- do you mind if I turn to  
17 the ER records here?

18 Q. Certainly.

19 (Witness reviewed document.)

20 A. I mean, on his initial -- repeat the question  
21 for me.

22 Q. Yes, sir. You identified three items that, I  
23 believe your words were calling out or crying out for  
24 attention. And you identify an elevated heart rate,  
25 decreased O2, and respiratory distress. And my question

1 was for you to identify, please, sir -- please, sir, the  
2 respiratory distress to which you refer.

3 A. Okay. Well, I mean, generally, hypoxia and  
4 elevated heart -- sorry, not elevated heart rate --  
5 elevated respiratory rate and hypoxia are signs of  
6 respiratory distress.

7 Q. This patient's heart -- respiratory rate was  
8 what? Tell me the rate you're referring to.

9 A. They recorded a rate of 24.

10 Q. When was that rate recorded? What -- what do  
11 you --

12 A. I believe on triage. Those were his triage  
13 vital signs.

14 Q. As I look at the ED notes, Dr. Parikh, the  
15 patient came in, he was noted to be highly agitated and  
16 combative. He was documented to be violently thrashing  
17 and screaming illogically. Would you expect a patient  
18 who is highly combative, who is highly agitated, who was  
19 violently thrashing and screaming illogically to have an  
20 elevated respiratory rate?

21 A. Yeah. He shouldn't be hypoxic.

22 Q. You commented about the hypoxia or the O2  
23 saturation of 90 percent in your discussion with  
24 Mr. Phillips. And my note reflects that you said he had  
25 a decreased O2 sat of 90 percent and arrested 10 minutes



1 later. Is that your understanding that within  
2 10 minutes after the 90 -- 90 percent O2 sat was  
3 obtained, that Mr. Goode arrested?

4 A. Let's see the exact timing. His...

5 (Witness reviewed document.)

6 MR. DILLARD: David -- this is Brad  
7 Dillard. Could you repeat that question, please?

8 MR. UPCHURCH: Yes, sir. I'll -- I'll  
9 attempt to. Brad, my -- my question was: My note from  
10 Dr. Parikh's testimony in response to Mr. Phillip's  
11 questions was that he referenced the decreased O2 sat of  
12 90 percent and that the patient arrested 10 minutes  
13 later. And he was correlating the O2 sat to the arrest.  
14 And my question was, was it his understanding that --  
15 that Mr. Goode arrested within 10 minutes after that 90  
16 O2 sat was recorded?

17 A. It was a longer time period.

18 MR. DILLARD: Thank you.

19 A. It was a longer time period than 10 minutes.  
20 It was -- the vital signs were taken at 2033 and the  
21 code started at 2122. So it was about 50 minutes.

22 Q. (BY MR. UPCHURCH) All right, sir.

23 A. No subsequent recorded vital signs in those  
24 50 minutes.

25 Q. As we return to -- well, strike that.

1                   Looking back at the emergency department  
2 records, Dr. Parikh, and you'll see these references in  
3 the patient care timeline, that timeline begins on  
4 page 38 of the records, if -- you'll see that number in  
5 the bottom right-hand corner. I want to be accurate in  
6 referring to the descriptions to Mr. Goode. At 2043 --  
7 at 2040 hours, you'll see that he is referred to as  
8 highly agitated and combative, correct?

9           A.    Yes.

10          Q.    Page 39, in a note that was timed at  
11 2056 hours, you'll see that he was violently thrashing  
12 and screaming illogically and screaming curses. Do you  
13 see that?

14          A.    Yes.

15          Q.    You'll see at the bottom part of that note,  
16 that he was noted to be delusional due to suspected  
17 influence of drugs?

18          A.    I'm sorry, where is that part?

19          Q.    It's at the -- it's very bottom of that 2056  
20 note.

21          A.    Okay.

22          Q.    See that?

23          A.    Yes.

24          Q.    At the 2101 note, you'll see that he is  
25 described as angry, agitated, combative, aggressive,

1 uncooperative, disoriented, violent, screaming loudly,  
2 speaking illegibly -- illegibly, dangerously agitated,  
3 uncooperative.

4 My question to you, Dr. Parikh, is: In  
5 looking at those descriptions of Mr. Goode and  
6 understanding that that was his behavior as was  
7 described by the healthcare providers at the time, do  
8 you agree that given that level of agitation,  
9 combativeness, thrashing, screaming, yelling, that --  
10 that those behaviors would have a deleterious impact on  
11 one's ability to obtain a meaningful EKG tracing for  
12 this patient?

13 A. Yes.

14 MR. MCCORMACK: Object to the form.

15 THE WITNESS: Sorry.

16 MR. MCCORMACK: You can answer.

17 Q. (BY MR. UPCHURCH) That is, you would not  
18 expect, as a board-certified cardiologist, to be able to  
19 get a meaningful EKG on a patient who is screaming, who  
20 is thrashing around violently with EKG leads on?

21 A. Agreed.

22 Q. You would agree that before one could get such  
23 a meaningful EKG, be that a 3-lead or a 12-lead EKG,  
24 that patient has to be calmed down to an extent that the  
25 leads can be appropriately applied, the patient can

1 remain appropriately calm and still so that the EKG can  
2 run in a meaningful way?

3 A. Yes.

4 Q. You would have no factual basis, would you,  
5 Dr. Parikh, to dispute the testimony of the healthcare  
6 providers that Mr. Goode's behavior, as we've just  
7 reviewed, prevented them from appropriately applying  
8 cardiac leads?

9 MR. MCCORMACK: Object to the form.

10 You can answer.

11 A. Sorry. Can you repeat that?

12 Q. (BY MR. UPCHURCH) Yes, sir.

13 A. I got thrown off.

14 Q. Fair enough. My question to you is: You  
15 would have no factual basis, would you, to dispute the  
16 testimony of the healthcare providers in this case that  
17 Mr. Goode's behavior prevented them from applying EKG  
18 leads to this patient?

19 MR. MCCORMACK: Object to the form.

20 A. No.

21 Q. (BY MR. UPCHURCH) Would you anticipate,  
22 Dr. Parikh, given your experience, that you've testified  
23 that a patient such as Mr. Goode with his behavior, his  
24 agitation, his screaming and yelling, that that could  
25 adversely impact a pulse oximeter's ability to get a

1 reliable lead?

2 A. Yes. But that doesn't mean an abnormal  
3 reading shouldn't be attempted for follow up.

4 Q. You would have no basis to factually dispute  
5 the deposition testimony, although I know you haven't  
6 read it, but the deposition of the healthcare providers  
7 that Mr. Goode's behavior, his screaming, his thrashing  
8 about violently, his combativeness prevented them from  
9 securing an O2 monitor on him?

10 MR. MCCORMACK: Object to the form.

11 Q. (BY MR. UPCHURCH) You would have no basis to  
12 factually dispute that, would you?

13 MR. MCCORMACK: Same objection.

14 You can answer.

15 A. No.

16 Q. (BY MR. UPCHURCH) You told Mr. Edwards --  
17 Mr. Phillips, pardon me -- when you all were discussing  
18 pulmonary edema -- do you remember that discussion?

19 A. Yes.

20 Q. My notes reflect that you said that Mr. Goode  
21 likely had pulmonary edema before the arrest, before his  
22 arrest. My question to you is: What is the factual  
23 basis that you have for that conclusion?

24 A. So I think the question was, you know, could  
25 it have happened at the time of the arrest or after. I

1 think it's more likely that he even had pulmonary edema  
2 before. He was hypoxic. He was agitated. He was in a  
3 position that perhaps compromised his cardiopulmonary  
4 status. He was getting more and more agitated, it seems  
5 like, based on some of these descriptions, which hypoxia  
6 can cause. I mean, he had a hypoxic reading. What  
7 other reason would he have to be hypoxic? And that  
8 finding was found on autopsy.

9           So I think it's more likely than not that  
10 he could have had pulmonary edema prior to his arrest  
11 and, you know, that was compromising his status.

12           Q. Have you identified every basis that you'll  
13 testify to the court and jury as to the -- as to the  
14 basis for your opinion regarding pulmonary edema? Is  
15 there any other factor other than the hypoxia, the  
16 agitation?

17           A. And the finding on the autopsy report, yeah.

18           Q. Describe for us, please, sir, the photograph  
19 that you received from Mr. McCormack and Mr. Edwards.  
20 What does it depict?

21           A. It depicts Mr. Goode in the -- in the prone  
22 hogtie position on his transfer from the ambulance into  
23 the hospital.

24           Q. Was it a video or a single photograph?

25           A. It was a photograph, I believe.

1 Q. Do you know who took the photograph?

2 A. Not off the top of my head. That information  
3 was provided to me, I believe. I just don't know it off  
4 the top of my head.

5 Q. All right, sir.

6 MR. UPCHURCH: I would like to mark as the  
7 next numbered exhibit the photograph, if we might, that  
8 was provided to Dr. Parikh, together with any  
9 nonprivileged email communication regarding that --  
10 regarding that photograph.

11 MR. MCCORMACK: I'm happy to provide it.  
12 I think that's part of Exhibit 7 that we've already  
13 discussed.

14 MR. UPCHURCH: Including the photograph?

15 MR. MCCORMACK: I believe so. I'll make  
16 sure that you get it.

17 MR. UPCHURCH: Fair enough.

18 Doctor, I believe that's all the questions  
19 I have for you, sir. Thank you.

20 THE WITNESS: Okay.

21 MR. MCCORMACK: Trey or Brad?

22 MR. JORDAN: This is Trey. On behalf of  
23 SEP, I have no questions.

24 EXAMINATION

25 BY MR. DILLARD:

1 Q. Doctor, this is Brad Dillard. I'm one of the  
2 attorneys representing the Southaven defendants. Can  
3 you hear me okay?

4 A. Yeah. Let me ask you --

5 Q. Okay.

6 A. -- if you have questions, I want to take a  
7 quick break and use the restroom, if that's okay.

8 MR. DILLARD: Absolutely. That will be  
9 fine.

10 (Break taken from 3:47 p.m. to 3:54 p.m.)

11 Q. (BY MR. DILLARD) Doctor, again, this is Brad  
12 Dillard. I'm one of the attorneys for the Southaven  
13 parties.

14 I think early on in your testimony, I made  
15 a note that you had some limited experience in working  
16 in a hospital ER on cardiac issues. Is that correct?

17 A. In a hospital ER on cardiac issues? I would  
18 call it more than limited experience. I think I'm  
19 pretty --

20 Q. All right. So maybe my understanding was that  
21 there were limited occasions where you had to treat  
22 patients who were in either police custody or in  
23 restraints. Would that be more accurate?

24 A. Yes.

25 Q. Would it be fair to say in none of those



1 occasions where police officers were present did any of  
2 those officers provide medical care to the patient while  
3 in the hospital ER?

4 A. That is correct. That the police officers  
5 didn't provide medical --

6 Q. In fact, as a physician, you would not expect  
7 a police officer to provide any medical care to a  
8 patient present in a hospital ER, would you?

9 A. Correct.

10 Q. In regard to the areas you're holding yourself  
11 out in as an expert, am I correct you're not holding  
12 yourself out as an expert on EMS standard of care  
13 issues?

14 A. I guess in evaluating certain -- there are  
15 certain things I think I could comment on, on how to  
16 properly evaluate, you know... In general, no, in terms  
17 of all EMS standard of care issues, but there are some  
18 areas I feel qualified to comment on.

19 Q. Which ones are those?

20 A. For example, if they suspect a patient's  
21 having an arrhythmia or an acute cardiac event, we are  
22 often in direct contact with -- with the field and with  
23 the EMS and supervising them in those patients' care.

24 Q. You said you're often in contact with the EMS  
25 concerning patient care?

1 A. Yes.

2 Q. And that would be you as in the -- the  
3 emergency room, or you as just a cardiologist? I'm  
4 trying to make sure I understand the situation.

5 A. There are certain -- for certain cardiac  
6 emergencies, we have what are called field activations,  
7 where we're in direct contact with EMS in the field,  
8 whether that's an ambulance crew, whether that's a  
9 CareFlight crew. And I should -- it's not often that we  
10 do that, but it is -- it's not rare. It's something  
11 that we commonly deal with.

12 Q. Looking on page 2 of your report, if you have  
13 that in front of you, Doctor, there's a -- this is a  
14 supplemental report dated July 31, 2017. There's a  
15 sentence midway down that page right above the heading  
16 "hospital care" --

17 A. Uh-huh.

18 Q. -- where you state, "In my opinion, the  
19 tachycardia was not addressed in any meaningful way,  
20 including basic supportive care, such as oxygen and IV  
21 hydration" [as read].

22 Would that be the totality of any  
23 criticism you might have of the Southaven EMS in regard  
24 to Mr. Goode?

25 A. Yeah. I would -- you know, some basic

1 measures in terms of follow-up vital signs and basic  
2 supportive care were -- didn't seem to be addressed. I  
3 think that's -- that's a good summary.

4 Q. Okay. So the point you would make in regard  
5 to the EMS care would relate to whether there was oxygen  
6 provided en route to the emergency room and whether  
7 there was IV hydration during --

8 A. Yeah.

9 Q. -- the ambulance ride. Would that be correct?

10 A. And -- and the oxygen level measured.

11 Q. Okay. Was the oxygen level measured upon  
12 admission to the ER?

13 A. On triage, yes, it was.

14 Q. Have you had experience with patients who were  
15 combative or agitated that made it difficult to  
16 administer oxygen or IV hydration?

17 A. Yes. I could understand that being the  
18 situation.

19 Q. Was there any medical documentation in this  
20 case you're aware of showing that Mr. Goode was, in  
21 fact, dehydrated upon admission to the Baptist ER?

22 A. Well, he had a -- he had an incredibly  
23 elevated heart rate. His blood pressure had dropped a  
24 little bit. Those would be the main signs. And just  
25 his overall clinical presentation.

1 Q. You're not relying on any -- are you -- well,  
2 strike that.

3 Are you rendering an opinion that  
4 Mr. Goode was, in fact, dehydrated based on the --

5 A. I would say more likely than not --

6 (Multiple people speaking simultaneously.)

7 Q. -- heart rate and --

8 THE REPORTER: I'm sorry, Mr. Dillard,  
9 could you restate your question?

10 MR. DILLARD: Sure.

11 Q. (BY MR. DILLARD) Doctor, are you -- are you  
12 rendering an opinion, then, that Mr. Goode was, in fact,  
13 dehydrated based upon the heart rate and blood pressure?

14 A. I would say more likely than not he was  
15 dehydrated.

16 Q. Going back just a moment to the areas that you  
17 are holding yourself out in, am I correct, though, you  
18 are not holding yourself out as an expert on any issues  
19 pertaining to law enforcement, such as law enforcement  
20 policies, procedures, or guidelines?

21 A. Yeah. No, I don't claim to be an expert on  
22 that at all.

23 Q. And you would render no opinions at trial  
24 concerning the involvement of the Southaven Police  
25 Department in regard to the apprehension and detainment

1 of Mr. Goode, would you?

2 A. I -- in -- help me understand the question in  
3 terms of do -- do I have a comment on how they  
4 apprehended him?

5 Q. No. My question -- let me rephrase that.

6 My question is -- to be sure I  
7 understand -- you will -- you will offer no criticism at  
8 trial of the Southaven Police Department, correct?

9 A. I -- I guess I don't have a -- in general, I  
10 think that the -- the prone hogtied position that he  
11 remained in could have been reevaluated. Does that help  
12 answer your question?

13 Q. I think so. And in your opinion -- again, to  
14 be sure I fully understand all of your opinions in this  
15 case -- in your opinion, when would that have been  
16 reevaluated?

17 A. I don't think there's an exact time. But when  
18 he was triaged and had signs of hypoxia and he continued  
19 to be agitated and tachycardic, those could have been  
20 times for reassessment.

21 Q. On page 4 of your report, in the paragraph  
22 under the heading "Mr. Goode's death," the last sentence  
23 of that paragraph states that, "Mr. Goode went into full  
24 hemodynamic collapse and cardiac arrest after over an  
25 hour and a half" [as read].

1 Do you see that sentence?

2 A. Yes.

3 Q. In your report, have you -- have you listed  
4 any -- well, strike that. Let me rephrase it, then.

5 You referenced an hour and a half period.  
6 At what point did this hour and a half period begin,  
7 in -- in your opinion, as referenced in your report?

8 A. So if you look at the time of arrest, I  
9 believe it was 9:33 or -- let's see...

10 (Witness reviewed document.)

11 A. Let me confirm that time.

12 Q. So you're commencing that time period at the  
13 point of arrest through the time of death?

14 A. No. Let's see, code starts -- sorry, 2122,  
15 which is 9:22, he was picked up by EMS, I believe, at  
16 8:20. That's an hour right there. He was probably in  
17 the prone maximal restraint position for some time  
18 before that. So an hour to an hour and a half of being  
19 tied up in that position before he coded.

20 Q. Okay. And that would be for a total time  
21 period [inaudible] --

22 THE REPORTER: Mr. Dillard, you --

23 MR. DILLARD: Yes?

24 THE REPORTER: You cut out. I got "and  
25 that would be a total time period..." Want to start

1 over?

2 MR. DILLARD: Okay. Let me -- let me  
3 restart that question.

4 Q. (BY MR. DILLARD) Doctor, that would be a  
5 total time period beginning on Goodman Road in  
6 Southaven, Mississippi, when Mr. Goode was first placed  
7 in the prone maximal position, through the ambulance  
8 ride to the hospital, through his stay in the ER until  
9 he coded; is that correct?

10 A. Up until the time of his arrest. It's unclear  
11 to me based on the documentation exactly when the prone  
12 hogtie position commenced, so that's why I used an hour  
13 to an hour and a half. It was at least -- at least an  
14 hour.

15 Q. You state at the bottom of page 4, "To  
16 summarize, it is my opinion that being maintained in the  
17 prone position prevented a proper assessment and  
18 monitoring of Mr. Goode's medical condition and likely  
19 was a substantial factor contributing to reduced cardiac  
20 output and eventual hemodynamic collapse" [as read].

21 What are -- I guess to help me understand,  
22 are you stating that there is something that could have  
23 been done or should have been done that would have  
24 prevented this collapse?

25 A. I think that when you have a constellation of

1 very abnormal vital signs, such as hypoxia, respiratory  
2 distress, tachypnea, and elevated heart rate, that there  
3 should, in some way, be closer monitoring of that, and  
4 observation of that, rather a 50-minute gap and then the  
5 patient arrests.

6 Q. Well, in your opinion, what would have been  
7 the latest point in time that some intervention, in your  
8 opinion, may have prevented the cardiac arrest and the  
9 hemodynamic collapse referenced in your report?

10 A. I think that's really hard to speculate on.

11 Q. You have no -- no opinion in that regard?

12 A. I think it's a speculative question that's  
13 kind of hard to answer.

14 MR. DILLARD: Okay, Doctor, thank you.

15 THE WITNESS: Thank you.

16 MR. MCCORMACK: Do we have somebody else  
17 on the -- oh, Trey?

18 EXAMINATION

19 BY MR. MCCORMACK:

20 Q. All right. Dr. Parikh, as you know, my name  
21 is Kevin McCormack. I represent Kelli Goode in this  
22 case. I have some questions for you based on what we've  
23 heard here today.

24 Just at the outset, would anything about  
25 our relationship, that being that my wife's father's



1 second cousin's childhood friend is somehow related to  
2 you, would that affect your professional judgment in any  
3 way in this case?

4 A. No.

5 Q. I want to talk to you a little bit about --  
6 you were asked questions about your experience in the  
7 emergency room. Do you treat patients who are in the  
8 emergency room at a hospital?

9 A. Yes.

10 Q. And can you explain to us how often you do  
11 that?

12 A. I mean, it's very common, several times a  
13 week.

14 Q. Do you ever consult -- have a consult with the  
15 doctor in the ER?

16 A. Yes.

17 Q. And by that, I mean an ER physician.

18 A. Yes.

19 Q. Okay. So in what role do they come to you  
20 when they've got a patient? What -- what are they  
21 looking to you to do?

22 A. It could be a wide range. It could be an  
23 acute emergent cardiac condition that requires emergent  
24 evaluation in the emergency room. It could be a patient  
25 that is getting admitted and perhaps I don't see that

1 patient in the emergency room, but I see them once  
2 they're admitted to the hospital. It could be a  
3 question that they have and they want to send the  
4 patient out and I see them as an outpatient. So there's  
5 a wide range of interactions we have with the ED  
6 physicians in the ER.

7 Q. Is it fair to say that they come to you when  
8 they need more specialized information about cardiac  
9 issues in the ER?

10 A. Yes.

11 Q. So they're essentially seeking your expertise  
12 in that area?

13 A. Yes.

14 Q. You were asked some questions about hypoxia  
15 and about Troy's ability to scream and whether or not  
16 that indicated some kind of respiratory compromise. Do  
17 you remember those questions?

18 A. Yes.

19 Q. Okay. Can you describe to us the difference  
20 between obstructive and restrictive conditions when  
21 we're talking about respiration?

22 A. Sure. There could be an obstruction in your  
23 airways. For example, if you choked on a piece of food  
24 that's stuck in your airway, that could be an  
25 obstructive lesion to -- to airflow. Restriction is

1 more external factors, like you can't take a deep  
2 breath, you can't inspire deeply, whether that's because  
3 of physical constraints.

4 Some patients have pathology where they're  
5 not able to move their rib muscles or diaphragms. So  
6 that's some of the differences between restrictive and  
7 obstructive physiology.

8 Q. Is it common for you to have to consider  
9 restrictive conditions when you're treating a patient  
10 who has cardiac condition?

11 A. Sometimes when patients have, you know,  
12 multitude of comorbidities, which they often have in  
13 sicker cardiac patients. They not only have heart  
14 conditions, but they have kidney conditions, lung  
15 conditions, et cetera. So what was your question again?

16 Q. My question was: Is that something you have  
17 to consider when you're evaluating cardiac conditions?

18 A. Yeah.

19 Q. Do you deal with that routinely?

20 A. Pretty commonly.

21 Q. When you have somebody who is in -- who has a  
22 restrictive condition, how can that affect their cardiac  
23 health? A restrictive pulmonary condition, they can't  
24 get enough oxygen, how does that affect their cardiac  
25 health?

1           A.    There's a close interplay between the heart  
2   and lungs.   So when you're not able to oxygenate  
3   properly, that can cause problems particularly on the  
4   right side of the heart, increased filling pressures,  
5   and that can affect the left side of the heart in terms  
6   of your cardiac output and the pressures inside your  
7   heart.

8           Q.    So speaking sort of generally -- and I know  
9   this is going to be a question where you can go on for a  
10   long time, so can you give us sort of an overview -- how  
11   does hypoxia affect -- let's start with heart rate?

12          A.    Yeah.   In the acute phases, generally, hypoxia  
13   is going to elevate your heart rate, because you want to  
14   get more oxygen from the lungs that may or may not be  
15   there and try to deliver more oxygen.   So your heart  
16   rate is generally going to go up.

17                   The hypoxia itself can cause feelings of  
18   air hunger and agitation, which itself can drive up  
19   adrenalin and drive up your heart rate.

20          Q.    And let's talk about cardiac output, how  
21   would -- well, actually, let's start with blood  
22   pressure.   How would hypoxia affect blood pressure?

23          A.    Initially, same type of thing.   You may  
24   increase your blood pressure as your vascular tone is  
25   trying to clamp down.   But if you're hypoxic long enough

1 and your heart itself isn't getting enough oxygen so it  
2 can't maintain cardiac output, it can't fill, it can't  
3 pump, then, eventually, you're going to have a decreased  
4 heart rate, decreased blood pressure, and even cardiac  
5 arrest.

6 Q. You said initially hypoxia would cause an  
7 increased heart rate?

8 A. Probably. In a healthy individual, if you  
9 suddenly couldn't breathe or you couldn't get enough  
10 oxygen, you probably would have an increase in your  
11 heart rate.

12 Q. Would that, at some point, change?

13 A. Yes, that can.

14 Q. And why would that happen?

15 A. If you're not getting enough oxygen to the  
16 point where you're not supplying your heart enough  
17 oxygen to work, then you're not going to produce cardiac  
18 output.

19 Q. You were asked some questions about EKG  
20 findings and how it might be difficult to obtain EKG  
21 findings on an agitated individual.

22 A. Yes.

23 Q. Do you need EKG findings to begin treatment  
24 for cardiac conditions?

25 A. There's different types of EKGs you can get.

1 You can get just short rhythm strips. You can get  
2 limited lead EKGs, or you can get 12-lead EKGs. Certain  
3 conditions you could treat without a 12-lead EKG.  
4 Certain conditions you need a 12-lead EKG. It's highly  
5 variable.

6 Q. You were asked some questions about  
7 supraventricular tachycardia. Do you need to have a  
8 diagnosis of supraventricular tachycardia in order to  
9 begin treating someone whose heart rate is 180 or above  
10 and whose oxygen levels are at 90 percent?

11 A. Right. You -- at that point, you don't need a  
12 specific diagnosis of what the SVT is. Now, if you know  
13 it, it may help you treat it, especially if it's certain  
14 types of more malignant arrhythmias. But at the  
15 minimum, when you see an elevated heart rate and  
16 hypoxia, further monitoring -- you know, IV hydration,  
17 supplemental oxygen, repeating vital signs -- should be  
18 pretty standard in that situation.

19 Q. And you were asked some questions about this  
20 probe. That's a clip that goes on the finger, right, to  
21 measure oxygen?

22 A. It's -- it comes in a lot of forms and I -- I  
23 don't know specifically which form they had in this  
24 particular case. It could be a -- a sticker-type thing.  
25 It could be a clip. Those are the two main forms in

1 use.

2 Q. If you have a reading on one of those that you  
3 think is inaccurate, do you commonly take another  
4 reading?

5 A. Yes.

6 Q. Why do you do that?

7 A. It also -- it depends on what's going on with  
8 the patient. You know, if you get a reading of  
9 2 percent and they're talking to you, you get a sense  
10 that that's probably an inaccurate reading. But if you  
11 think it's inaccurate and the patient isn't doing well,  
12 then you want to make sure to get a follow-up to make  
13 sure that it's chalking it up to an inaccurate response,  
14 okay?

15 So the constellation of a variety of  
16 abnormal vital signs, respiratory distress, hypoxia,  
17 elevated heart rate, in that situation, you'd want to  
18 follow up to make sure your assumption that it's a --  
19 just a false, erroneous oxygen level is, is that, you  
20 don't want to assume that unless you actually know it.

21 Q. You were asked some questions about notes that  
22 you made about abrasions and contusions.

23 A. Uh-huh.

24 Q. And you noted that those weren't present at  
25 triage, according to the medical records, right?

1           A.    Well, they weren't -- yeah, they weren't  
2   commented on.

3           Q.    And they were on the autopsy?

4           A.    Yes.

5           Q.    Do you have any opinion that -- as to when  
6   those were sustained, when those abrasions and  
7   contusions were sustained by Mr. Goode?

8           A.    I would -- they were probably sustained along  
9   the way of trying to restrain him, whether it was in the  
10  field or in the process of restraining him. He also had  
11  an encounter with a -- with a canine as well. I would  
12  assume it's somewhere in that process.

13          Q.    Because they're not noted on triage, you don't  
14  know whether or not they were there on triage, do you?

15          A.    Yeah, I --

16          Q.    You obviously weren't there?

17          A.    No; I couldn't comment on that.

18          Q.    All right. Based on your review of the  
19  medical records, is it possible that those were  
20  sustained during his stay in the hospital?

21                   MR. PHILLIPS: Objection; calls for  
22  speculation.

23          Q.    (BY MR. MCCORMACK) You can answer.

24                   MR. DILLARD: Join -- join in the  
25  objection.



1 MR. JORDAN: Same objection. This is Trey  
2 Jordan.

3 MR. UPCHURCH: Joined.

4 A. The -- they could have happened anywhere along  
5 the course.

6 Q. (BY MR. MCCORMACK) You were asked some  
7 questions about police, and I believe you said that you  
8 don't expect police to provide medical care?

9 A. Correct. I believe the question was  
10 specifically in the hospital.

11 Q. Correct. You don't expect a police officer,  
12 in the hospital, to be the one providing medical care to  
13 one of your patients?

14 A. Right.

15 Q. If there is a -- a patient you have with a  
16 medical condition, you wouldn't tell a police officer to  
17 go and monitor it for you, would you?

18 A. No.

19 Q. I want to talk to you a little bit about the  
20 basics of, sort of, cardiology. When you're talking  
21 about cardiology, we're talking about the heart, right?

22 A. Yes.

23 Q. Okay. And you've already said that the heart  
24 and the lungs are closely related, they have a close  
25 interplay, right?

1 A. [Nods head.]

2 Q. Is that accurate?

3 A. Yes; yes, sorry.

4 Q. So let's talk about oxygen delivery. We all  
5 know, I think, that the lungs take in oxygen from the  
6 air. How does that air get out into, let's say, your  
7 hand or other organs in -- in your body?

8 A. Yeah. So the right side of the heart gets  
9 deoxygenated blood from the body, goes through the right  
10 atrium, right ventricle to the pulmonary arteries, which  
11 are the only arteries that carry deoxygenated blood, go  
12 to the lungs, get oxygenated, return via the pulmonary  
13 veins to the left side of the heart, left atrium, into  
14 the left ventricle, and then that is systemically pumped  
15 out, delivered via our arteries, capillaries to the rest  
16 of our organs to deliver oxygen and other nutrients.

17 Q. Okay. Can you describe to us the difference  
18 between an artery and a vein?

19 A. Arteries, for the most part, take blood away  
20 from the heart and carry oxygenated blood, with the  
21 exception of the pulmonary arteries that carry  
22 deoxygenated blood. Veins return blood flow to the  
23 heart. They're generally deoxygenated, with the  
24 exception of the pulmonary veins that have oxygenated  
25 blood from the lungs.

1 Q. Yeah. So it's fair to say that the -- the  
2 veins are what return it to the heart?

3 A. Yes.

4 Q. Is that true also with the inferior vena cava,  
5 the IVC?

6 A. Yes.

7 Q. All right. In terms of the number of veins  
8 that return blood to the heart, how significant is the  
9 IVC?

10 A. That's -- there's two major veins that return  
11 blood flow to the heart. Superior vena cava mainly does  
12 a lot of our brain and then some arms, both our arms as  
13 well. And then, really, the rest of the body returns  
14 blood flow to the heart via the inferior vena cava. So  
15 one of the two very important veins that return blood  
16 flow into the heart.

17 Q. In terms of volume, which one provides more  
18 blood back to the heart?

19 A. It's really highly variable on -- for example,  
20 after you've eaten and you have a lot of blood flow to  
21 the stomach, it's going to be much more variable coming  
22 from the inferior vena cava. In general, more oxygen is  
23 extracted from the blood that goes to our brain. So it  
24 can be about equal, but sometimes, you know, it can be  
25 more superior vena cava. But it's -- it's an

1 important -- at least, generally, 50 percent -- from the  
2 inferior vena cava, but that can go up and down.

3 Q. In a lot of the studies that you've cited to  
4 and that you've discussed today, you discuss the  
5 inferior vena cava and its diameter going down.

6 A. Uh-huh.

7 Q. Why is that important?

8 A. So -- so I mentioned earlier that there's a  
9 lot of different ways to measure cardiac output. Some  
10 of the ones that we consider to be the gold standard are  
11 either very expensive or very invasive. So, generally,  
12 that's not a good way to go in the large majority of  
13 patients or in a more urgent evaluation of a patient.

14 So we use different clinical markers, or  
15 we use different tests, such as echocardiography, which  
16 is generally readily available -- quickly available; can  
17 be brought to the patient's bedside. And one of the  
18 markers -- and it's a very good marker that can be used  
19 for filling in the heart is looking at the IVC -- IVC  
20 size and dimensions, how wide it is and how it responds  
21 to respirations, if it collapses or not.

22 And that's a marker of cardiac filling and  
23 right atrial pressures, and it's a good marker of that.

24 Q. When you say "cardiac filling," what is that?

25 A. Just blood flow returning to the heart.

1 Q. Okay. So if you don't have sufficient cardiac  
2 filling, presumably, you can't pump blood into the rest  
3 of your body, right?

4 A. Right. You're not going to have adequate  
5 cardiac output.

6 Q. When you have decreased venous return or  
7 cardiac filling, is that the same thing?

8 A. Decreased venous return, yeah, leads to less  
9 cardiac filling.

10 Q. Okay. So when you have decreased venous  
11 return, how does your body compensate for that? Let's  
12 say that you do have your IVC that's been narrowed,  
13 how -- what would your body do in response?

14 A. So from a cardiac output standpoint -- just to  
15 really make it simple, you could look at two variables.  
16 Cardiac output is equal to your heart rate times your  
17 stroke volume. So if your volume is going down because  
18 of less venous return, less blood flow to the heart,  
19 generally, your heart rate's going to go up to keep your  
20 cardiac output the same.

21 Q. And I think you've already discussed the  
22 compensatory mechanisms for hypoxia. That's also  
23 increased heart rate as well?

24 A. Yes.

25 Q. If you were to take a patient and immediately

1 cut off their inferior vena cava, what sort of effects  
2 would that have on -- on their physical health?

3 A. They would have decreased return blood flow to  
4 the heart. There would also be the issue of where that  
5 blood flow would go acutely. They'd get a lot of  
6 swelling or edema, especially if it happened acutely  
7 because they haven't developed channels to return that  
8 blood flow.

9 So, initially, you would have decreased  
10 stroke volume. You'd probably compensate by increasing  
11 your heart rate to try to maintain your cardiac output.  
12 But at a certain point, if you're not getting that  
13 volume into the heart somehow, you're going to have  
14 decreased cardiac output. And once your compensatory  
15 mechanisms can't be sustained, they'll wear out.

16 Q. And when you have that decreased cardiac  
17 output, what effects would that have on a person's  
18 health?

19 A. Decreased blood pressure, you know, congestive  
20 heart failure. In extreme situations, cardiac arrest.

21 Q. Did you see any signs that Troy Goode had a --  
22 that his blood pressure was starting to drop at any  
23 point in your review of these documents?

24 A. There are some signs that his diastolic blood  
25 pressure dropped, I think, by about 30 points compared

1 to the measurements in EMS versus the triage  
2 measurement.

3 Q. That would have been a change that occurred  
4 in between about five minutes in two readings, right?

5 A. Yes.

6 Q. In that time, what happened to Troy Goode's  
7 heart rate?

8 A. Heart rate seemed to go up from the 1 --  
9 mid-160s to the mid-180s.

10 Q. If you have a patient who has tachycardia at  
11 180, a drop in blood pressure, and signs of hypoxia, and  
12 those conditions are not treated, they are not addressed  
13 in any way, to a reasonable degree of medical certainty,  
14 would you expect that patient to suffer negative medical  
15 effects from it?

16 A. Yes.

17 Q. And what sort of negative effects would you  
18 expect to see?

19 A. Well, if they're not resolved, I mean, if the  
20 hypoxia is worsening, what we talked about, you could  
21 eventually have cardiac arrest even. If the -- if  
22 respiratory distress isn't involved and they don't have  
23 a protected airway -- meaning, you know, they're not  
24 able to breathe -- they're going to have respiratory  
25 collapse as well.

1                   So I think the constellation of those  
2 signs, it needs further, at minimum, observation and  
3 further evaluation.

4           Q.    What -- when Troy Goode finally had a cardiac  
5 arrest after about, I think you said an hour and a half  
6 in this hogtied position, what rhythm did he go into?

7           A.    Let me pull the ER records. I believe that it  
8 was PEA arrest, but there's also mention of potential  
9 defib that he was shocked out of. Let me pull that.

10                   (Witness reviewed document.)

11           A.    So I'm just turning to page 40 of the hospital  
12 records right now. Code start, initial rhythm looked  
13 like PEA -- pulseless electrical activity, PEA. Well,  
14 here, there's only mention of PEA. I believe -- so it  
15 was definitely PEA arrest. But I think the ER physician  
16 notes -- also made note of defib. But it looks like  
17 mainly it was PEA arrest, which stands for pulseless  
18 electrical activity.

19           Q.    What are the common causes of pulseless  
20 electrical activity?

21           A.    So the common ones are hypovolemia, acidosis,  
22 hypo or hyperchloremia, hypoxia. Cardiac tamponade can  
23 do it. Problems with the lung, tension pneumothorax.  
24 Certain toxins can certainly do it. Those are some of  
25 the -- any kind of -- some kind of trauma can do it.



1 Those are, kind of, the major ones that would lead to  
2 PEA arrest.

3 Q. Based on your review of the medical records,  
4 did you see any --

5 A. Sorry, hypothermia can do it as well.

6 Q. Did you see any sign that Troy Goode was  
7 suffering from hypoxia?

8 A. Yeah. I mean, an O2 sat of 90 percent and  
9 respiratory distress.

10 Q. Based on your review of the records, did you  
11 have any reason to believe Troy Goode might have had --  
12 you mentioned an acidosis?

13 A. Yes.

14 Q. That he might have had some kind of acidosis  
15 developing, whether respiratory or metabolic?

16 A. He -- he could have. You know, we don't have  
17 laboratory data, but he could have had acidosis as well.

18 Q. And you mentioned certain toxins. Is LSD  
19 cardiotoxic?

20 A. Not directly.

21 Q. When you say it's not directly cardiotoxic,  
22 does that mean that in your practice when you hear that  
23 somebody's gone into cardiac arrest, do you even  
24 consider that it could be an LSD overdose?

25 A. No.

1 Q. That's not something that you commonly  
2 experience?

3 A. No.

4 Q. Have you ever seen an LSD-related cardiac  
5 arrest?

6 A. No.

7 Q. With other drugs, does that happen?

8 A. Yes. Certain toxins, mainly cocaine, have  
9 very well-known mechanisms of action with direct  
10 cardiotoxicity, both acute and chronic.

11 Q. I think that Mr. Phillips went over this with  
12 you, but you haven't been provided any witness  
13 statements from witnesses in the hospital, have you?

14 A. No.

15 Q. If a witness saw that Troy Goode had a red  
16 face, that his eyes were bulging out, and that he was  
17 moaning and that he was saying the word "breathe," would  
18 that be an indication to you that your conclusion that  
19 Troy Goode was in respiratory distress is accurate?

20 MR. PHILLIPS: I'll object. It's beyond  
21 the scope of the disclosure.

22 MR. UPCHURCH: Join.

23 MR. DILLARD: Join in the objection. This  
24 is Brad Dillard.

25 MR. JORDAN: Trey Jordan. Same objection.

1 Q. (BY MR. MCCORMACK) Would that be -- or would  
2 that account be consistent with your opinion?

3 A. Generally moaning, yelling out, incoherency,  
4 that can be signs of severe agitation from hypoxia.

5 Q. You mentioned agitation can be a sign of  
6 hypoxia?

7 A. Yes.

8 Q. Have you witnessed that yourself in your  
9 practice?

10 A. Yes.

11 Q. Is it common for people who are hypoxic to  
12 become agitated?

13 A. Yes.

14 Q. You were asked a question about restraints and  
15 whether Mr. Goode was in less restraint when he was in  
16 the hospital. When Mr. Goode was in the hospital, he  
17 was subjected to chemical restraints, wasn't he?

18 A. I believe he was given IV medication, yes.

19 Q. Okay. And those medications can be used as  
20 chemical restraints?

21 A. They can. It's -- I would say -- that's a  
22 little bit out of my area, but they have been known to  
23 use as chemical restraints.

24 Q. I want to talk to you a little bit, generally,  
25 about medical research. You reviewed a lot of medical

1 articles in preparing your opinion today. Are some  
2 articles that are published better than others?

3 A. Definitely.

4 Q. And when I say "better," they will give you  
5 more indication of what's really going on in the  
6 condition?

7 A. They're better quality studies.

8 Q. You mentioned that there were some problems  
9 with methodology in some of the studies that you looked  
10 at. How -- do problems with methodologies affect what  
11 you should draw from a -- from reading one of these  
12 studies?

13 A. Yeah. And -- and this kind of goes back to  
14 why it's difficult answering some of the previous  
15 questions if I agreed to certain conclusions. For  
16 example, in the Ho and the Savaser studies, healthy  
17 subjects, without anything else going on, were subject  
18 from anywhere from two to three minutes of prone hogtie  
19 position, and then a conclusion was drawn that a prone  
20 maximal position doesn't reduce cardiac output. And  
21 those two to three minutes are then suddenly applied to  
22 someone who is hypoxic, tachycardiac, and in the prone  
23 hogtie position for well over an hour.

24 So your -- your patient has to fit the  
25 population that was being studied. And using some of

1 these studies where patients are in a -- completely  
2 healthy patients without any kind of other forces going  
3 on in a, kind of, very normal conditions are subjected  
4 to two to three minutes and then drawing a conclusion  
5 that there's no affect on cardiac output is -- frankly,  
6 it's quite out there. That's why I kind of disagree  
7 with some of the interpretations of some of these  
8 studies.

9 But if you look at some of these studies  
10 and the echocardiography effects on certain markers for  
11 cardiac output, you know, we talked about how it's hard  
12 to measure cardiac output directly. But even in those  
13 few minutes, certain signs of decreased heart filling  
14 and decreased pressures in the heart are present.

15 So, you know, you could look to some of  
16 these other studies were actually done in cardiology  
17 journals that looked at healthy patients as well, looked  
18 at different modalities, including nuclear medicine,  
19 which is a different way of looking at it compared to  
20 echocardiography.

21 You could look at the surgical studies.  
22 Granted, it is a different patient population, but even  
23 in patients that are in a prone position during surgery,  
24 have IV hydration, that have a protected airway, just  
25 being prone for a few minutes changes their stroke

1 volume in cardiac output, okay? And that's only after a  
2 few minutes.

3 So I think you really got to look at that  
4 data. And it's hard to draw conclusions that when you  
5 see these changes after a few minutes, that there's, you  
6 know, going to be no change in a patient that has been  
7 outside on a hot day, bitten by a dog, has been subdued,  
8 is agitated for a variety of reasons, has had LSD  
9 intoxication, is hypoxic, tachycardic. To compare that  
10 to this patient population is kind of a stretch to come  
11 to some of the same conclusions.

12 So you've got to look at methodologies of  
13 your studies, who's doing the studies, who's reading the  
14 studies. The -- some of the advantages, I think, of the  
15 cardiology studies is you have cardiologists reading  
16 these studies that they're board-certified to do. For  
17 example, you can be board-certified in echocardiography.  
18 You can be board-certified in reading nuclear studies,  
19 which I am both. And the other thing is those readers  
20 were both blinded, meaning --

21 Q. What does that mean?

22 A. -- they didn't realize that -- what patient  
23 was in, if they were supine, if they were prone, or  
24 what were the conditions of the patient. They were just  
25 reading the study and -- and coming out with -- and that

1 was described in the methodology section. In the  
2 methodology section of the -- you know, the forensic and  
3 legal medicine journal, there really wasn't a  
4 description of who was reading the studies, if it was  
5 blinded, okay? So if the authors or persons reading the  
6 studies were a little biased about the results that they  
7 wanted, you could introduce bias as well in that method.

8 So, you know, I think there's a lot of  
9 interesting methodologies, things to look at here. And  
10 I do think that my expertise in cardiovascular medicine  
11 really hits at that. You know, I could comment on that  
12 quite confidently.

13 Q. You mentioned something about bias. When  
14 you're looking at a study, let's say it's a new drug  
15 that comes out, do you have to look at who funded that  
16 study?

17 A. Right. I mean, if you've got a pharmaceutical  
18 company funds a study that their drug is great, you've  
19 got to -- you want to make sure you're looking at the  
20 study and see what their methodology is, you know, that  
21 the patient did great for three weeks, and then the  
22 patient should be on the medication for 10 years. Well,  
23 how about some data that extends out to 5 or 10 years  
24 before we put them on the medication for that long?  
25 So...

1           Q.    Do you have to consider whether the person  
2 performing the study has a vested interest in the  
3 outcome?

4           A.    You do.  And that's why the -- when you look  
5 at the major clinical trials that are considered the  
6 highest standard, they are generally -- they're  
7 randomized, meaning sometimes the patients themselves  
8 don't even know which arm they're in, if they're getting  
9 the medication or not.  And the physicians or clinicians  
10 evaluating them don't know what they're on.  There's a  
11 lot of blinding that goes on.

12                        So in some of these observational case  
13 studies, that's sometimes not possible to do.  But if  
14 you know the condition of the patient, it could  
15 introduce some bias.

16           Q.    When you're looking at a study, do you have to  
17 consider how large the patient population was that was  
18 being studied?

19           A.    Yeah, and you -- the larger patient  
20 population, generally the better.

21           Q.    You were asked some questions about that white  
22 paper on excited delirium.

23           A.    Uh-huh.

24           Q.    That white paper contains citations to  
25 sources, right?



1           A.     Yes.

2           Q.     Do you know where the -- you were asked about  
3     a line in there that says that LSD may cause excited  
4     delirium. Do you know what that -- which study that was  
5     drawn from?

6           A.     Off the top of my head, no. I could...

7           Q.     If a statement is drawn from a case study,  
8     does it have the same weight to you as if it comes from  
9     a -- a double-blind study?

10          A.     No.

11          Q.     You mentioned already that Troy Goode's heart  
12     rate got into the mid-180s. What's a normal heart rate  
13     for a 30-year-old male?

14          A.     At rest, a normal heart rate generally should  
15     be considered between 60 and 100. Below 60 could be a  
16     slow heart rate. Above 100 is generally fast heart  
17     rate. Now, certainly when someone is exercising, you  
18     can get your heart rate up 140, 150, even 160. That can  
19     be considered normal in the proper setting, but the  
20     heart rate should come down eventually at rest.

21          Q.     Would 186 be considered a normal heart rate  
22     for a 30-year-old male?

23          A.     That's definitely an elevated heart rate.

24          Q.     In -- in a clinical setting if you saw a  
25     patient who had a heart rate of 180 -- sorry, 186, would

1     you consider that something that needed follow-up?

2             A.     Yes.

3             Q.     If you saw a patient in the ER who had a heart  
4     rate of 186, would you consider that something that  
5     needs to be followed up on?

6             A.     Yes.

7             Q.     Does being hogtied in the prone position  
8     harm -- let me rephrase that.

9                     Does being hogtied in the prone position  
10    affect cardiac output?

11            A.     So in the literature that I've looked at, I  
12    think that being in the hogtied prone position leads to  
13    decreased stroke volume. And in the nuclear and the TEE  
14    studies that were done does cause a decrease in the  
15    cardiac index.

16                    So, you know, in two out of the four  
17    studies here with the two studies coming out of  
18    cardiology journals with cardiologists dedicated to  
19    reading the echos and nuclear studies, both those  
20    studies showed that the prone position caused a decrease  
21    in cardiac output.

22            Q.     Can a decrease in cardiac output be harmful to  
23    a patient?

24            A.     Yes.

25            Q.     How so? It's kind of a broad question.

1           A.    I know. Well, it's just -- it's one of those  
2 things that's like so fundamental to me hard --  
3 sometimes it's hard to explain.

4                       Yeah, but, generally, when you decrease  
5 your cardiac output, that means you're delivering less  
6 oxygen, less nutrients. You're clearing less toxins.  
7 And that's how you deliver brain and -- and nutrition  
8 and oxygen to the brain to your major internal organs.

9                       So when you have a drop -- a prolonged  
10 drop in cardiac output, your body's going to try to  
11 maintain cardiac output as long as it can with  
12 compensatory mechanisms, by trying to increase the heart  
13 rate, by trying to increase your breathing. But at a  
14 certain point, if you don't have enough oxygen and  
15 you're not delivering it, then you can go into, you  
16 know, full-blown cardiac arrest.

17           Q.    And is it your opinion that that's exactly  
18 what happened with Troy Goode?

19           A.    I think that he had an unstable physiologic  
20 condition that was documented by a prolonged time of  
21 elevated heart rate, an unknown time, but at least  
22 50 minutes from the time the oxygen was measured to when  
23 he had cardiac arrest, respiratory distress. And he had  
24 prolonged physiologic instability related to being in  
25 the prone hogtied position that led to his cardiac

1     arrest.

2           Q.    And is that opinion to a reasonable degree of  
3     medical certainty?

4           A.    Yes.

5           Q.    All right.  I want to ask you a few questions  
6     about excited delirium --

7           A.    Sure.

8           Q.    -- to wrap up here.  When was the first time  
9     you heard the term "excited delirium"?

10          A.    During, kind of, reviewing this case, and  
11     specifically reviewing Dr. Vilke's statement, and then,  
12     kind of, doing further investigation based on that.

13          Q.    Do you believe that excited delirium is a  
14     recognized medical condition in the field of cardiology?

15          A.    It is not really recognized in any  
16     cardiovascular text or any cardiovascular literature of  
17     a syndrome of excited delirium causing cardiac arrest,  
18     no.

19          Q.    I want to go a little broader.  Was it  
20     something that you read about in medical school?

21          A.    You know, in four years of medical school,  
22     three years of residency, three years of general  
23     fellowship, another year of advanced fellowship and in  
24     practice, I've never heard this term or heard its  
25     relation to cardiac arrest.

1           Q.    Do you commonly deal with -- treat patients  
2   who have had a cardiac arrest in the emergency room and  
3   then are transferred to in-patient care?

4           A.    Yes.

5           Q.    Okay.  What kinds of conditions can cause the  
6   person to have cardiac arrest that you then have to see  
7   for in-patient care?

8           A.    In general, we end up seeing a lot of the  
9   cardiac arrests because it's often related to the heart,  
10  or they have some consequences to their heart from  
11  cardiac arrest.  But the most common cause of in-patient  
12  hospital are respiratory compromise or circulatory  
13  compromise.

14                    So it's very common I see cardiac arrest  
15  patients.  Now, it doesn't happen that often, so I don't  
16  see cardiac arrest patients every day, but we're very  
17  often involved in their care.

18          Q.    How many patients in your entire medical  
19  career have you seen who are in-patients where you  
20  had -- where they had had a cardiac arrest due to  
21  excited delirium?

22          A.    None.

23          Q.    How many patients have you treated in the  
24  emergency department who had cardiac issues due to  
25  excited delirium?

1           A.   None.  And I've never heard an emergency room  
2 physician mention this diagnosis either.

3           Q.   Have you ever heard any of your fellow  
4 cardiologists at any conference discuss this possible  
5 theory?

6           A.   No.  The first time I heard a cardiologist  
7 mention it was Dr. Clair's report.

8           Q.   You mentioned in your report that you -- that  
9 this hypothesis of excited delirium has some -- some  
10 issues.  What -- what sorts of issues do you see with  
11 this hypothesis of excited delirium?

12          A.   Well, I'll just read from the white paper  
13 itself.  Describe some of the -- "At present" -- I'm  
14 quoting from the White Paper Report on excited delirium.  
15 Quote, "At present, physicians and other medical and  
16 nonmedical personnel involved in personal interaction  
17 with these patients do not have a definitive diagnostic  
18 test for excited delirium syndrome" [as read].

19          Q.   Okay.  Let's stop there.  What does that mean?

20          A.   There's no way to actually test these patients  
21 for it, a diagnostic test, laboratory test.  And  
22 further, you know, the exact pathophysiology of excited  
23 delirium remains unidentified.  So you can't --

24          Q.   Explain to us what that means.

25          A.   You have a syndrome that you -- doesn't have a

1 clear definition of diagnosis clinically, doesn't have a  
2 clear pathophysiologic mechanism, can't be defined  
3 postmortem on autopsy, can't be defined on laboratory  
4 data. You know, I'll read it here, epidemiology section  
5 of the paper. "The exact incidence of excited delirium  
6 syndrome is impossible to determine as there is no  
7 current standardized case definition to identify excited  
8 delirium syndrome" [as read].

9 So the paper itself says there's no way to  
10 recognize this syndrome. There's been no link that I'm  
11 aware from a cardiology standpoint of excited delirium  
12 in cardiac arrest. I'm sure there's some proposed  
13 mechanisms; none of them are proven.

14 "The pathophysiology of excited delirium  
15 is complex and poorly understood" [as read], another  
16 direct quote from -- from the paper. So I think that  
17 speaks to my opinion of excited delirium as a diagnosis.

18 Q. You've already mentioned that LSD is not  
19 cardiotoxic. If Troy Goode had taken LSD and not been  
20 restrained and never had this run-in with the Southaven  
21 Police Department or with the medical providers in this  
22 case, do you see any reason that that LSD would have led  
23 to cardiac arrest?

24 MR. PHILLIPS: Objection; lack of  
25 foundation and beyond the scope of the expert

1 disclosure.

2 MR. UPCHURCH: Join the objection.

3 MR. MCCORMACK: You can answer.

4 MR. DILLARD: This is Brad Dillard. Join  
5 the objection.

6 MR. JORDAN: Trey Jordan also joining the  
7 objection.

8 THE WITNESS: I may also join a little  
9 bit.

10 MR. PHILLIPS: It's unanimous.

11 A. I will say that in my experience in  
12 cardiology, there's not been known direct LSD toxicity  
13 or LSD causing acute heart attacks or LSD causing  
14 weakened heart muscle or congestive heart failure.

15 I guess I don't have enough knowledge on  
16 pure pharmacology about LSD to completely comment on it.  
17 But from a cardiovascular perspective, it's just  
18 something we don't clinically encounter. It's not  
19 something that we're taught about. It's not -- like we  
20 are with some of the other toxins. So -- what was the  
21 exact -- exact question again? I'm sorry.

22 Q. (BY MR. MCCORMACK) It was whether or not you  
23 thought that LSD, in the absence of this run-in with the  
24 police, should have been a cause of death for Troy  
25 Goode?



1           A.    It shouldn't -- it shouldn't cause cardiac  
2   arrest.

3           Q.    All right.

4                   MR. MCCORMACK:  Marty, I might have one  
5   more in here.  Do you want me to look through?  I know  
6   you said you had a few more, but I want to try to speed  
7   it up rather than --

8                   MR. PHILLIPS:  I don't -- I don't think  
9   I'm going to have anymore, but I'm ready to wrap it up  
10  so I can catch my flight.

11                  MR. MCCORMACK:  Well, in that case --  
12  David, are you going to have anymore questions?

13                  MR. UPCHURCH:  [Shakes head.]

14                  MR. MCCORMACK:  How about you, Brad?  
15  Brad?

16                  MR. DILLARD:  Hello?

17                  MR. MCCORMACK:  Brad, do you have anymore  
18  questions?

19                  MR. DILLARD:  I'm having a hard time  
20  hearing some of that.  Did Kevin finish his line of  
21  questioning?

22                  MR. MCCORMACK:  I did.  I might have one  
23  more, but I'm looking at my notes.  I'm trying to speed  
24  things up.  So if you want to hop in, I'm happy to let  
25  you hop in while I look at --

1 MR. DILLARD: I'm not going to have any  
2 further questions. Thank you.

3 MR. MCCORMACK: All right. Then give me  
4 just five minutes to check my notes. I probably don't  
5 have anything more.

6 MR. PHILLIPS: Why don't you take a minute  
7 and a half.

8 THE REPORTER: Off the record?

9 MR. MCCORMACK: Off the record.

10 (Off the record for less than one minute.)

11 MR. MCCORMACK: I have no further  
12 questions.

13 MR. DILLARD: This is Brad. I would like  
14 a copy, please.

15 (Proceedings concluded at 4:49 p.m.)  
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## CHANGES AND SIGNATURE

WITNESS NAME: PARIN PARIKH, M.D. DATE: SEPTEMBER 19, 2017

PAGE LINE

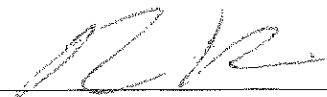
CHANGE

REASON

144 Line 22

hyperchloraemia → hyperkalemia  
(mis-transcribed)

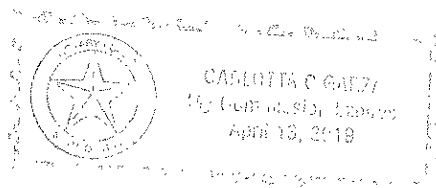
I, PARIN PARIKH, M.D., have read the foregoing deposition and hereby affix my signature that same is true and correct, except as noted above.

  
PARIN PARIKH, M.D.

THE STATE OF TEXAS )  
COUNTY OF Rockwall )

Before me, Carlotta Garza, on this day personally appeared PARIN PARIKH, M.D., known to me (or proved to me under oath or through TEXAS Driver License) (description of identity card or other document)) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 21 day of November, 2017.



  
NOTARY PUBLIC IN AND FOR  
THE STATE OF TEXAS  
COMMISSION EXPIRES: 04.13.2019

1 STATE OF TEXAS )

2 COUNTY OF DALLAS )

3 I, LISA C. HUNDT, a Certified Shorthand Reporter in  
4 and for the State of Texas, hereby certify that,  
5 pursuant to the agreement hereinbefore set forth, there  
6 came before me on the 19th day of September, A.D, 2017,  
7 at 1:10 p.m., at the office of Lexitas, located at 1201  
8 Elm Street, Suite 5220, in the City of Dallas, State of  
9 Texas, the following named person, to-wit: PARIN  
10 PARIKH, M.D., who was by me duly cautioned and sworn to  
11 testify to the truth, the whole truth, and nothing but  
12 the truth of his knowledge touching and concerning the  
13 matters in controversy in this cause; and that he was  
14 thereupon carefully examined upon his oath and his  
15 examination reduced to writing under my supervision;  
16 that the deposition is a true record of the testimony  
17 given by the witness, same to be sworn and subscribed by  
18 said witness before any Notary Public, pursuant to the  
19 agreement of the parties; and that the amount of time  
20 used by each party at the deposition is as follows:

21 Mr. Kevin M. McCormack - 0 hours, 42 minutes,

22 Mr. Marty R. Phillips - 1 hour, 53 minutes,

23 Mr. L. Bradley Dillard - 0 hours, 12 minutes,

24 Mr. David W. Upchurch - 0 hours, 30 minutes,

25 Mr. James F. Garrett - 0 hours, 0 minutes,

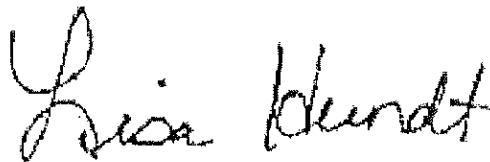
1 Mr. James R. Gass - 0 hours, 0 minutes,

2 Mr. Loys A. "Trey" Jordan - 0 hours, 0 minutes

3 I further certify that I am neither attorney nor  
4 counsel for, nor related to or employed by, any of the  
5 parties to the action in which this deposition is taken,  
6 and further, that I am not a relative or employee of any  
7 attorney or counsel employed by the parties hereto, or  
8 financially interested in the action.

9 I further certify that before the completion of the  
10 deposition,   X   the Deponent, and/or            the  
11 Plaintiff/Defendant,   X   did            did not request  
12 to review the transcript.

13 In witness whereof, I have hereunto set my hand and  
14 affixed my seal this 10th day of October, A.D. 2017.

15  
16   
17

18  
19 LISA C. HUNDT, CSR, RPR, CLR  
Texas CSR No. 6533  
Expiration Date: 12/31/18

20  
21 LEXITAS-DALLAS  
Firm Registration No. 459  
6500 Greenville Avenue, Suite 445  
22 Dallas, Texas 75206  
214.373.4977  
23

24  
25 Taxable Cost: \$ 1100.85